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TABULÆ ATOMICÆ.

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THE

# CHEMICAL TABLES

FOR THE

CALCULATION OF QUANTITATIVE ANALYSES

OF H. ROSE.

RECALCULATED FOR THE MORE RECENT DETERMINATIONS OF  
ATOMIC WEIGHTS, AND WITH OTHER ALTERA-  
TIONS AND ADDITIONS.

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## P R E F A C E.

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THE Tables contained in the present work are those appended by M. H. Rose, of Berlin, to his celebrated Manual of Analytical Chemistry: they have been found convenient, and have been extensively used by European chemists. Since the publication of his treatise, the atomic weights of a number of the elements have been determined with greater precision, and it has become necessary in consequence to recalculate the Tables for the advance made in this branch of the science. In undertaking this labor, I have endeavoured to choose those atomic weights which rest upon the most trustworthy researches, and which have been most generally received by chemists. In several instances in which more recent determinations might have been taken, it has seemed to me advisable to retain the older numbers.

As the value of a work of this kind depends entirely upon its correctness, I may state that every calculation was performed by myself, *both by direct division and by the use of logarithms*. The columns of multiples were computed separately by myself and another, and our

results compared both before and after they were transcribed. Finally, to avoid as far as possible errors of the press, each sheet, besides the usual correction, has been most carefully revised by myself.

Such additions to the Tables have been made as were required by the progress of analytical chemistry. I have likewise added a table of the equivalent numbers of the elements and principal compounds, with their logarithms and chemical symbols. The column of logarithms is my own, and I am not aware that a table has been before prepared for this mode of performing the calculation. In Rose's work, under *chlorine* and *sulphur* are given the composition of all the combinations of these bodies; but as they occupy much space, and are of comparatively little practical use, I have omitted the greater part of these articles.

In the construction of the Tables the Latin terms have been preferred, as being the common language of science, and as better adapted than the English to express the degrees of chemical combination.

W. P. D.

BROOKLINE, Mass., *June* 17, 1850.



## INTRODUCTION.

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### I. *The Atomic Weights used.*

THE atomic weights employed in the following Tables are for the most part those adopted by Berzelius in the last edition of his Chemistry. In some few instances there has seemed reason for preferring the results of later experimenters, or for a different calculation of former analyses. In every case in which an equivalent differing from that given by Berzelius has been assumed, a particular explanation of the cause of departing from so high an authority has been subjoined.

In accordance with the views of this chemist, the theory by which the atomic weights of the elements are exact multiples of that of hydrogen, has not been followed; and the equivalents have been given as derived directly from the results of experiment, without allowance by calculation for the weight of the air displaced.

The equivalents of chlorine, hydrogen, and the other bodies of that class, as also of phosphorus, arsenic, antimony, and bismuth, have been taken to represent the weight of the atom; the same has been done with respect to gold, the atom of which is halved by Berzelius, that its weight may correspond with the specific heat of the metal. Aluminium, glycium, and zirconium are the only remaining elements which combine solely by double atoms. The constitution of the compounds of the last two is not, as yet, established with certainty; the isomorphous relations of alumina forbid the supposition that it contains but a single atom of radical.

The atomic weights of *chlorine*, *potassium*, and *silver* are those of Marignac, as revised by Berzelius; they differ from the numbers given in the Annual Report by the omission of a series of analyses of chlorate of silver, by which M. Marignac designed to control the results furnished by the chlorate of potash, and also in not being reduced to a vacuum. The numbers thus revised have been adopted by Rammelsberg.

The equivalent of *hydrogen* was fixed by Berzelius at 12.48; and "this result," he says, "is confirmed by comparison of the specific gravities of oxygen and hydrogen." The later and very accurate experiments of Dumas gave from 12.48 to 12.57, the mean being 12.51. In consequence of its proximity, the multiple 12.50 was adopted. If now the equivalent be calculated from Regnault's determinations of the specific gravity of oxygen and hydrogen, a number 12.53 will be obtained, falling entirely within the limits of the experiments of Dumas, and approaching more nearly the equivalent assumed by him than that of Berzelius. For this reason, it has been thought advisable to take 12.50 for the equivalent of hydrogen.

The equivalent of *carbon* is deduced by Berzelius from the densities of carbonic acid and carbonic oxide gases. The direct and concordant determinations of Dumas, and of Erdmann and Marchand, seem to merit the preference; by which, in the language of Professor Graham, "the equivalent of carbon has been reduced, with the general concurrence of chemists, to 75."

The atomic weights of several bodies have recently been determined by Pelouze, by the amount of a standard solution of nitrate of silver required for the complete precipitation of their chlorides. The number given for *arsenic* was thus obtained: it is the mean of three concordant analyses, and agrees perfectly with the specific gravity of arseniatted hydrogen obtained by Dumas.

Berzelius determined the equivalent of *phosphorus* from the silver which a given weight of it reduced.\* The number so obtained dif-

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\* In the calculation of this experiment an error seems to have been committed. The atomic weight of phosphorus is given as 392.041; it should be 391.72.

fers considerably from that given by Pelouze (400.3), and agrees much better with Rose's determination of the sp. gr. of phosphuretted hydrogen. On this account, and because there is reason to suspect that in Pelouze's experiments some of the silver may have been reduced by the phosphorus, the number assigned by Berzelius has been retained.

The equivalent of *silicium* obtained by Pelouze differs so much from that given by Berzelius, that it was thought advisable not to adopt it until it should have been more generally received by chemists. The table under the head of *Silicium* has been calculated for both these numbers; but where this element occurs in other places, the determination of Berzelius has been taken. The atomic weight is now derived by him from the direct oxydation of *silicium*; it was before deduced from the composition of the silico-fluoride of barium, and was dependent, of course, upon those of fluor and barium. In this way the equivalent was found, on the supposition of three atoms of oxygen in silicic acid, equal to 277.312. Experiments by direct oxydation gave 277.778, which is the number here adopted.

For *sodium* the mean result of three concordant and apparently exact experiments of Pelouze has been taken. The number given by Berzelius is founded upon one experiment, in which he ascertained the chloride of silver obtained from a given weight of chloride of sodium.

Stromeyer and Pelouze determined the atomic weight of *strontian* by the analysis of the chloride. The former obtained 545.929; the latter, 548.4256. The mean, 547.177, is the number used.

Marignac has lately given determinations of the atomic weights of barium, cerium, lanthanum, and didymium.

By the method employed by Pelouze he obtained 857.32, as the mean of six experiments, for the equivalent of *barium*. It had been previously determined by Pelouze at 858.01; and by Berzelius, from the composition both of the chloride and the sulphate, at 855.40.

The equivalents of *cerium*, *lanthanum*, and *didymium* were de-

terminated by precipitating their protosulphates by a measured solution containing a known quantity of chloride of barium. By repeated experiments upon a salt which had undergone from two to five crystallizations, the equivalent of *cerium* was fixed at 590.80.

The atomic weight of *didymium* is only approximatively ascertained, and is probably too low, since it was found impossible to divest it of the last traces of lanthanum.

Marignac's number for barium is nearly the mean of those of Berzelius and Pelouze; and, from the care with which the experiments appear to have been made, and M. Marignac's well-known accuracy in researches of this kind, I have not hesitated to adopt his numbers for the equivalents of the above-named bodies.

Berzelius assigned 596.10 as the equivalent of *molybdenum*; but was not satisfied with the method pursued, or the result. Svanberg and Struve, by the conversion of a known weight of sulphide of molybdenum into molybdic acid, found the numbers 575.829 or 588.966, according as the equivalent of sulphur was estimated at 200 or at 200.75. The latter is the one adopted.

Since the publication of Ebelmen's researches upon *uranium*, in which he determined the atomic weight by combustion of the oxalate, Peligot has shown that this salt retains with obstinacy traces of the chloride or nitrate from which it may have been formed; and which are fully sufficient to account for the discrepancy between his results and those of Ebelmen. By repeated analyses both of the oxalate and acetate, the equivalent was finally fixed at 750.

For the atomic weight of *mercury* Berzelius takes the experiments of Erdmann and Marchand, in which they ascertained the quantity of metal reduced from a known weight of oxyde. These experiments are five in number. One, in which the reduction was effected by means of graphite, gave an equivalent exceeding considerably that obtained from the rest. The mean of the five is 1251.293, and is adopted by Berzelius. Erdmann and Marchand give the weights reduced to a vacuum, and take the mean of four, excluding that in which graphite was employed. They thus get 1250.6, or, more exactly, 1250.68. If we follow them in rejecting

the experiment with the graphite, the mean of the remaining four, the weights being taken in air, is 1251.019, which, without appreciable error, may be called 1251.02.

The results of these experiments are subjoined : —

	In Air.	In Vacuo.
	1250.623	1250.3
	1250.98	1250.7
	1251.065	1250.6
	1251.408	1251.1
(Graphite,) . . .	1252.39	1252.1
Mean of the five, . . .	1251.293	1250.9
Mean of four, . . .	1251.019	1250.68

The equivalent of *thorina* is very doubtful. If deduced from the composition of the double sulphate of thorina and potassa, it is 745.

For *titanium* Berzelius recalculated Rose's analyses of the bichloride for the revised atomic weight of chloride of silver. In the computation slight errors will be found, making the mean 301.304, and not 301.55, for the equivalent.

A similar error has been made with regard to *osmium*, the equivalent of which, calculated from the chloride of potassium in the double chloride of osmium and potassium, should be 1243.624, instead of 1242.624.

The mean of two determinations of the atomic weight of *tungsten* is wrongly estimated at 1188.36 for 1183.36.

The atomic weights which depend upon those of chlorine, silver, sulphur, &c., have been recalculated by Berzelius, in his last edition, for the equivalents assigned by him to these bodies. The same has been done in the present work with regard to the atomic weights of Marignae and Pelouze which have been adopted; that of lithium has also undergone a slight alteration, in consequence of the new equivalent of barium made use of in its calculation.



II. *Use of the Tables.*

IN the first column of the Tables are the names of the substances whose weight is obtained in the ordinary processes of analysis. The second column contains the names of those whose weight it is wished to ascertain by means of the first. The columns which have at the top the figures 1, 2, 3, . . . . 9, show the quantity of the substance whose name is in line with it in the second column contained respectively in 1, 2, 3, . . . . 9 parts of the body in the same line of the first column.

Omitting for the present the column of logarithms, the use of the Tables will be best illustrated by an example.

A quantity of chloride of silver equal to one grain has been obtained in the course of analysis, and it is desired to ascertain the amount of metallic silver which it contains. Turning to the Table in which the body *sought* is treated of, and which, in the present case is the third, we find, in the fourth line, in the column of *INVENTA*, Chloridum Argentium, and in that of *INVENIENDA*, Argentum. In the unit column of the same line is the number 0.75276, which represents the fraction of a grain of metallic silver contained in one grain of the chloride.

Had the quantity of chloride *found* been 10 or 0.1 grs., it is evident that, by moving the decimal point one place to the right in the first case, and to the left in the latter, the same figures would give the silver corresponding respectively to each of these quantities. And by adding the figures of several columns, with due regard to the proper position of the decimal, the silver contained in any given weight of chloride may readily be ascertained.

Let us suppose the chloride *found* to weigh 31.35 grs.

30.	grs. Ag Cl contain	.	.	22.58290 Ag.
1.	" " "	.	.	0.75276 "
.3	" " "	.	.	.22583 "
.05	" " "	.	.	.03763 "
<hr/>				
31.35	grs. Ag Cl contain, therefore,			23.59912 Ag.

The last decimals, it will be seen, may be neglected without materially affecting the result.

The columns marked LOGARITHMUS contain the logarithms of the numbers in the unit column of the same line.\* For those who are familiar with their use, this will be found a very expeditious and convenient way of making the calculation. It is, besides, free from all chance of error arising from a *wrong placing of the decimal point*; an error which, by the other method, may easily be committed.

To perform the calculation by logarithms, we prefix to the logarithm given in the Table its proper characteristic, which is indicated by the adjoining number in the unit column, and add to it the logarithm of the number expressing the weight of the substance *found*. The result is the logarithm of the number required.

To apply this to the above instance, we find in the Table the logarithm 8766586, and, as it is the logarithm of the decimal 0.75276, its characteristic is negative and unity. Adding to it the logarithm of 31.35, the weight of the chloride of silver *found*, viz. 1.4962375, we have 1.3728961 for the logarithm, and the number 23.599 for the weight, of the silver required.

Calculations not expressly provided for in the tables may frequently be performed by a combination of two or more of the series

\* The column of logarithms is calculated directly from the atomic weights of the substances whose relation they express; and, as they are carried to two more places of decimals, the results obtained in this way are more exact than those derived from a combination of the several numbers in the unit columns.

In the instance cited in the text, the calculation, without the use of tables, would be performed, by the rule of three, as follows:—

$$\text{Ag Cl} : \text{Ag} :: 31.35 : x.$$

By logarithms:—

$$\log. x = \log. 31.35 + [\log. \text{Ag} - \log. \text{Ag Cl}].$$

Now the difference of the logarithms inclosed in the vinculum is a constant quantity for all values of the third term of the proportion; it is the logarithm given in the table, and is obviously that of the number in the unit column, supposing the decimal of the latter to be carried out to completion.

I would add, that Rose considers logarithms as not leading to sufficiently accurate results for the calculation of exact analyses. This is true if the logarithm be carried only to five decimal places; but if tables of seven decimals be made use of, the results will be found more exact than if made with Rose's Tables.

there given. If it be required, for instance, to ascertain the quantity of oxyde of ammonium in a compound in which we have weighed the ammonium in the form of the double chloride of platinum and ammonium, we shall find no line in Table II. answering our purpose. But, by the fourth line, there is given the *ammonia* corresponding to any given weight of the double chloride; and, from the weight of the ammonia thus *found*, we can, by the seventh line, ascertain the required amount of oxyde of ammonium.

Let us suppose, to take another case, that there have been obtained 13.59 grains of black oxyde of copper, and that the metal existed in the substance examined in the state of chloride. To how much chloride of copper are 13.59 grains of oxyde equivalent?

By the third and fourth lines of Table XVII., 13.59 grains of oxyde of copper are shown to be composed of 10.85 of copper and 2.74 of oxygen. The ninth line of Table XIV. shows that 2.74 oxygen correspond to 12.14 chlorine; and adding 12.14 to 10.85, the quantity of copper, we have 22.99 for that of the chloride required.

The design and application of the greater part of the Tables will be understood from the above remarks. Particular explanations of some of the less obvious cases are annexed. For a full exposition of the analytical processes in which they are required, and of the method of their performance, the reader is referred to the Treatises of Rose and Fresenius.

### TABLE III.

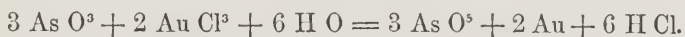
No. 9.—For the purpose of estimating silver, by the process of Gay-Lussac, from the amount of a standard solution of chloride of sodium required for its precipitation.

### TABLE IV.

Nos. 11 and 12. — *Process of Levol and H. Rose.* — The ammoniaco-magnesian arseniate is supposed to have been dried at

212° F. If dried over sulphuric acid at common temperatures, the calculation must be made for the formula  $2 \text{Mg O} + \text{N H}^4 \text{O} + \text{As O}^5 + 12 \text{H O}$ .

No. 13. — “When arsenic is contained in a solution in the state of arsenious acid,  $\text{As O}^3$ , its amount can be very accurately ascertained by means of a solution of chloride of gold. From the amount of gold reduced, the quantity of the arsenious acid can be calculated.” — H. Rose.



## TABLE XX.

The sixth line of this Table gives the quantity of sesquioxide of iron which would be formed from any given weight of the metal, and is of use in the determination of arsenic and phosphoric acids by the process of Berthier.

Nos. 6 to 15 are used in making the analysis of mixtures of the protoxyde and peroxyde of iron.

Nos. 8 and 9 give the quantity of oxygen required for the conversion into protoxyde and peroxyde, respectively, of a given weight of iron.

No. 10 shows the amount of protoxyde which the addition of a given quantity of oxygen can convert into peroxyde; and

Nos. 11 and 12, the quantities of each of the oxydes which could be formed with a given weight of oxygen.

The use of this series will be best seen by an example.

It is desired to ascertain the quantity of protoxyde and of peroxyde of iron in a mixture of these oxydes, weighing, for instance, 3.449 grains.

The oxydes having been reduced, at a red heat, by hydrogen gas, a residue of metallic iron is obtained, weighing, we will suppose, 2.506 grs.; while, at the same time, there has been formed a quantity of water amounting to 1.061 grs. By the second line of Table XXIV. it will be seen that 1.061 parts of water contain 0.94311 of oxygen, which is therefore the quantity previously combined with the iron. According to the ninth line of the present

Table (XX.), to convert 2.506 iron into sesquioxide would require 1.07238 of oxygen. The difference between this last number and 0.94311, viz. 0.12927, must express the amount of oxygen necessary to convert into peroxyde the protoxyde of iron contained in the compound. This quantity of protoxyde we shall find by the tenth line (Table XX.) to be 1.16479. Subtracting 1.16479, the weight of the protoxyde, from 3.449, the combined weight of both oxydes, leaves 2.284 for that of the peroxyde.

It is not necessary that the combined weight of the oxydes should be known. Provided we have ascertained the weight of metallic iron left, and that of the water formed in the reduction by hydrogen, the amount of each of the oxydes may be calculated. For this purpose, we find, as before, from the water obtained, the whole quantity of oxygen contained in the mixture, and also that of the protoxyde of iron. The oxygen in the 1.16479 grs. of protoxyde is next calculated, by the aid of the second line of the Table; or it may more readily be obtained by doubling the quantity of oxygen, 0.12927, which we have previously found to be required for the conversion of the protoxyde of the mixture to peroxyde. Subtracting now the 0.25854 oxygen of the protoxyde from 0.94311, the whole quantity contained in the mixture, leaves 0.68457 for that of the peroxyde; and, from the twelfth line of the Table, we find this quantity of oxygen to be contained in 2.284 grs. of peroxyde.

If the weight of the combination of the two oxydes is known, they may be dissolved in nitric acid, and the peroxyde precipitated by ammonia and weighed. The difference of the two weights gives the oxygen which has combined with the protoxyde. The amount of the latter may then be readily ascertained, as before, by the tenth line of the Table.

The thirteenth line is for the estimation of the quantity of peroxyde in a combination of the oxydes, from the sulphur which precipitates when their solution is acted upon by hydrosulphuric acid gas.

No. 14 is for the same determination by means of metallic silver



in powder. The increase of weight of the silver, due to the chlorine which it takes from the perchloride of iron, gives, by the use of the Table, the corresponding quantity of peroxyde.

No. 15 indicates the quantity of protoxyde of iron in a combination of the oxydes, by the metallic gold reduced from a solution of the auro-chloride of sodium.

The sixteenth series is for the calculation of the oxydes when combined with phosphoric acid, according to the process of Fuchs.

It will be seen, by an examination of the figures of these different series, that, in the reduction of the oxydes by hydrogen, a small error in the performance of analysis leads to a large one in the estimation of the oxydes. The error is proportionably diminished in the process by sulphuretted hydrogen, and still more by the use of the powdered silver; but it is reduced to its lowest limits when the determination of the protoxyde is effected by means of the auro-chloride of sodium.

#### TABLE XXXI.

No. 15. — For the estimation of the amount of the peroxyde contained in the manganese of commerce, by the usual process with oxalic and sulphuric acids.

By the use of the table, the necessity of operating upon any particular weight, in order to simplify the calculation, is avoided; and the result will be far more accurate than if the carbonic acid evolved be taken, as is usually done, for the equivalent of the peroxyde contained in the sample.

#### TABLE XXXIII.

The last six lines of this Table have been computed, at the suggestion that they would be of use in determining, for technical purposes, without the labor of a calculation, the quantities of the several salts of soda contained in the articles of commerce.

#### TABLE XXXV.

Nos. 12, 13. — For the determination of nitric and nitrous acids as sulphate of baryta.

The nitric acid is first combined with baryta; the resulting nitrate is converted into sulphate of baryta, from the weight of which may be calculated that of the nitric acid with which the base was previously combined.

No. 15 is for the determination of nitrous acid by means of the carbonic acid and nitrogen evolved in its action upon urea. The process is analogous to that of Fresenius and Will for the estimation of the peroxyde of manganese, and is conducted in a similar way.  $(\text{C}^2 \text{N}^2 \text{H}^4 \text{O}^2) + 2 \text{N O}^3 = 2 \text{C O}^2 + 4 \text{N} + 4 \text{H O}.$

Schwarz in Liebig's *Annalen*, April, 1849, or *Chemical Gazette*, July, 1849.

#### TABLE XXXVIII.

The fourteenth line of this table is for the calculation of the quantity of hypophosphorous acid, and the fifteenth for that of phosphorous acid, from the protochloride of mercury reduced from a solution of the perchloride.

#### TABLE XLV.

Nos. 9 and 10. — Mixtures of the protoxyde and peroxyde, or of protochloride and perchloride of tin are estimated by the precipitate formed on the addition of their solution to one of perchloride of mercury. The precipitated protochloride of mercury gives, by No. 9, the quantity of protoxyde, and by No. 10, that of protochloride, of tin present in the solution.

(For the details and precautions to be observed, see Rose's Treatise.)

#### TABLE XLVI.

No. 9. — The estimation of the sulphur in the sulphuret of antimony may be made by treating a weighed quantity of the sulphuret with hydrochloric acid. By this means only the perchloride of antimony ( $\text{Sb Cl}^3$ ), corresponding in composition to antimonious acid, is formed, and the equivalent quantity of sulphur escapes in the form of sulphuretted hydrogen. The remainder of the sulphur

separates in the solid form, and its weight indicates the amount of sulphuret corresponding to antimonious acid ( $\text{Sb S}^3$ ). The Table answers for the calculation.

No. 14.—Antimonious acid ( $\text{Sb O}^3$ ) can be estimated in a similar manner to arsenious acid by means of a solution of auro-chloride of sodium or ammonium. II. Rose, *Pogg. Ann.*, LXXVII. p. 110; *Chem. Gazette*, Oct. 1849.

## TABLE XLVIII.

By the tenth line of this table, the quantity of hyposulphurous acid is deduced from that of the sulphate of baryta obtained when the hyposulphurous acid has been completely converted into sulphuric acid by fusion with nitre or chlorate of potash.

The eleventh line indicates a quantity twice as great, and is used when, after the decomposition of a hyposulphite by nitrate of silver, the sulphuric acid remaining in solution, which contains the half of the sulphur of the hyposulphurous acid, is estimated for the calculation of the latter.

The sulphuret of silver which is precipitated in this reaction contains the other half of the sulphur of the hyposulphurous acid, which may, from its weight, be calculated by means of the twelfth line.



TABULÆ ATOMICÆ.





# PONDERUM ATOMICORUM TABULA.

NOMINA.	SYMBOLA.	PONDERA ATOMICA.	LOGARITHMUS POND. ATOM.
ALUMINIUM	Al	170.90	2327421
Oxyd. Aluminicum	Al <sup>1</sup> O <sup>3</sup>	641.80	8073997
Chlorid. Aluminicum	Al <sup>2</sup> Cl <sup>3</sup>	1671.64	2231428
Sulphas Kalico-Aluminicus	$\left\{ \begin{array}{l} \text{K O S O}^3 + \\ \text{Al}^2 \text{ O}^3 3 \text{ S O}^3 \end{array} \right\}$	3233.656	5096938
ARGENTUM	Ag	1319.66	1302244
Oxyd. Argentium	Ag O	1449.66	1612662
Chlorid. Argentium	Ag Cl	1792.94	2535658
Sulphid. Argentium	Ag S	1550.41	1904466
Nitras Argenticus	Ag O + N O <sup>5</sup>	2124.72	3273017
ARSENICUM	As	937.466	9719555
Acid. Arseniosum	As O <sup>3</sup>	1237.466	0925333
Acid. Arsenicum	As O <sup>5</sup>	1437.466	1575976
Sulphid. Arseniosum	As S <sup>3</sup>	1539.716	1874406
Sulphid. Arsenicum	As S <sup>5</sup>	1941.216	2880739
AURUM	Au	2458.33	3906402
Oxyd. Aurosum	Au O	2558.33	4079566
Oxyd. Auricum	Au O <sup>3</sup>	2758.33	4406462
Chlorid. Auricum	Au Cl <sup>3</sup>	3788.17	5784295
BARIUM	Ba	857.32	9331430
Oxyd. Baricum	Ba O	957.32	9810571
Chlorid. Baricum	Ba Cl	1300.60	1141437
Carbonas Baricus	Ba O + C O <sup>2</sup>	1232.32	0907235
Sulphas Baricus	Ba O + S O <sup>3</sup>	1458.07	1637784
BISMUTHUM	Bi	2660.754	4250047
Oxyd. Bismuthicum	Bi O <sup>3</sup>	2960.754	4714023
Nitras Bismuthicus	Bi O <sup>3</sup> + 3 N O <sup>5</sup>	4985.934	6977466

NOMINA.	SYMBOLA.	PONDERA ATOMICA.	LOGARITHMUS POND. ATOM.
BORON	B	136.204	1341899
Acid. Boricum	B O <sup>3</sup>	436.204	6396897
Fluorid. Boricum	B F <sup>3</sup>	842.509	9255746
BROMUM	Br	999.62	9998349
Acid. Bromicum	Br O <sup>5</sup>	1499.62	1759812
Bromid. Hydricum	H Br	1012.12	0052234
Bromid. Argenticum	Ag Br	2349.28	3709349
CADMIUM	Cd	696.767	8430875
Oxyd. Cadmicum	Cd O	796.767	9013314
Sulphid. Cadmicum	Cd S	897.517	9530427
CALCIUM	Ca	251.651	4007986
Oxyd. Calcium	Ca O	351.651	5461118
Sulphas Calcicus	Ca O + S O <sup>3</sup>	852.401	9306439
Carbonas Calcicus	Ca O + C O <sup>2</sup>	626.651	7970257
CARBONICUM	C	75	8750613
Oxyd. Carbonicum	C O	175	2430380
Acid. Carbonicum	C O <sup>2</sup>	275	4393327
Acid. Oxalicum	C <sup>2</sup> O <sup>3</sup>	450	6532125
CERIUM	Ce	590.60	7712934
Oxyd. Cerosum	Ce O	690.60	8392266
Oxyd. Cericum	Ce <sup>2</sup> O <sup>3</sup>	1481.20	1706137
CHLORUM	Cl	443.28	6466781
Acid. Hypochlorosum	Cl O	543.28	7350237
Acid. Chloricum	Cl O <sup>5</sup>	943.28	9746406
Acid. Perchloricum	Cl O <sup>7</sup>	1143.28	0581526
Chlorid. Hydricum	H Cl	455.78	6587553
CHROMIUM	Cr	328.39	5163899
Oxyd. Chromicum	Cr <sup>2</sup> O <sup>3</sup>	956.78	9808121
Acid. Chromicum	Cr O <sup>3</sup>	628.39	7982293
Sulphas Chromicus	Cr <sup>2</sup> O <sup>3</sup> + 3 S O <sup>3</sup>	2459.03	3907638
COBALTUM	Co	368.65	5666142
Oxyd. Cobalticum	Co O	468.65	6708486
Sesquioxyd. Cobalticum	Co <sup>2</sup> O <sup>3</sup>	1037.30	0159044
CUPRUM	Cu	395.60	5972563
Oxyd. Cuprosum	Cu <sup>2</sup> O	891.20	9499752
Oxyd. Cupricum	Cu O	495.60	6951313
Sulphas Cupricus	Cu O + S O <sup>3</sup>	996.35	9984119
DIDYMIUM	Di	620	7923917
Oxyd. Didymicum	Di O	720	8573325

NOMINA.	SYMBOLA.	PONDERA ATOMICA.	LOGARITHMUS POND. ATOM.
ERBIUM	E		
FERRUM	Fe	350.527	5447215
Oxyd. Ferrosium	Fe O	450.527	6537208
Oxyd. Ferricum	Fe <sup>2</sup> O <sup>3</sup>	1001.054	0004575
Acid. Ferricum	Fe O <sup>3</sup>	650.527	8132653
FLUOR	F	235.435	3718710
Fluorid. Hydricum	H F	247.935	3943379
Fluorid. Calcicum	Ca F	487.086	6876056
GLYCIUM	G	87.124	9401378
Oxyd. Glycinicum	G <sup>2</sup> O <sup>3</sup>	474.248	6760055
HYDRARGYRUM	Hg	1251.02	0972642
Oxyd. Hydrargyrosium	Hg <sup>2</sup> O	2602.04	4153140
Oxyd. Hydrargyricum	Hg O	1351.02	1306617
Chlorid. Hydrargyrosium	Hg <sup>2</sup> Cl	2945.32	4691325
Chlorid. Hydrargyricum	Hg Cl	1694.30	2289903
HYDROGENIUM	H	12.50	0969100
Oxyd. Hydricum	H O	112.50	0511525
Binoxid. Hydricum	H O <sup>2</sup>	212.50	3273589
IODUM	I	1585.992	2003010
Acid. Iodicum	I O <sup>5</sup>	2085.992	3193126
Acid. Periodicum	I O <sup>7</sup>	2285.992	3590747
Iodid. Hydricum	H I	1598.492	2037104
Iodid. Argentium	Ag I	2935.652	4677046
IRIDIUM	Ir	1232.08	0906389
Oxyd. Iridosum	Ir O	1332.08	1245303
Sesquioxid. Iridosum	Ir <sup>2</sup> O <sup>3</sup>	2764.16	4415632
Oxyd. Iridicum	Ir O <sup>2</sup>	1432.08	1559672
Sesquioxid. Iridicum	Ir O <sup>3</sup>	1532.08	1852814
KALIUM	K	488.856	6891809
Oxyd. Kalicum	K O	588.856	7700091
Chlorid. Kalicum	K Cl	932.1365	9694795
Sulphas Kalicus	K O + S O <sup>3</sup>	1089.606	0372695
LANTHANIUM	La	588	7693773
Oxyd. Lanthanicum	La O	688	8375884
LITHIUM	Li	82.612	9170431
Oxyd. Lithicum	Li O	182.612	2615293
MAGNESIUM	Mg	158.139	1990390
Oxyd. Magnesicum	Mg O	258.139	4118536

NOMINA.	SYMBOLA.	PONDERA ATOMICA.	LOGARITHMUS POND. ATOM.
Sulphas Magnesicus (Pyro) Phosphas Magnesicus	$\text{Mg O} + \text{S O}^3$ $2 \text{ Mg O} + \text{P O}^5$	758.889 1407.998	8801782 1486021
MANGANIVM	Mn	344.684	5374211
Oxyd. Manganosum	Mn O	441.684	6180515
Oxyd. Manganicum	$\text{Mn}^2 \text{ O}^3$	989.368	9953578
Binoxyd. Manganicum	Mn O <sup>2</sup>	541.684	7361446
Acid. Manganosum	Mn O <sup>3</sup>	644.684	8093469
Acid. Permanganicum	$\text{Mn}^2 \text{ O}^7$	1389.368	1428173
MOLYBDENUM	Mo	588.966	7700902
Oxyd. Molybdosum	Mo O	688.966	8381978
Oxyd. Molybdicum	Mo O <sup>2</sup>	788.966	8970583
Acid. Molybdicum	Mo O <sup>3</sup>	888.966	9488851
NATRIUM	Na	287.435	4585397
Oxyd. Natricum	Na O	387.435	5881989
Chlorid. Natricum	Na Cl	730.715	8637481
Carbonas Natricus	$\text{Na O} + \text{C O}^2$	662.435	8211433
Sulphas Natricus	$\text{Na O} + \text{S O}^3$	888.185	9485035
NICCOLUM	Ni	369.33	5674146
Oxyd. Niccolicum	Ni O	469.33	6714783
NIOBIUM	Nb		
NITROGENIVM	N	175.06	2431869
Oxyd. Nitricum	N O	275.06	4394274
Binoxyd. Nitricum	N O <sup>2</sup>	375.06	5741007
Acid. Nitricum	N O <sup>5</sup>	675.06	8293424
Ammonia	N H <sup>3</sup>	212.56	3274815
OSMIUM	Os	1243.624	0946891
Oxyd. Osmiosum	Os O	1343.624	1282778
Sesquioxyd. Osmiosum	Os <sup>2</sup> O <sup>3</sup>	2787.248	4451756
Oxyd. Osmicum	Os O <sup>2</sup>	1443.624	1594541
Acid. Osmicum	Os O <sup>4</sup>	1643.624	2158025
OXYGENIVM	O	100	0000000
PALLADIUM	Pd	665.477	8231331
Oxyd. Palladosum	Pd O	765.477	8839321
Oxyd. Palladicum	Pd O <sup>2</sup>	865.477	9372555
Chlorid. Palladoso-Kalicum	$\text{K Cl} + \text{Pd Cl}$	2040.893	3098202
Iodid. Palladosum	Pd I	2251.469	3524660
PELOPIUM	Pe		
PHOSPHORUS	P	391.72	5929757



NOMINA.	SYMBOLA.	PONDERA ATOMICA.	LOGARITHMUS POND. ATOM.
Acid. Phosphorosum	P O <sup>3</sup>	691.72	8399303
Acid. Phosphoricum	P O <sup>5</sup>	891.72	9502285
Phosphid. Hydricum	P H <sup>3</sup>	429.22	6326800
PLATINUM	Pt	1232.08	0906390
Chlorid. Platinico-Ammonic.	N H <sup>4</sup> Cl + Pt Cl <sup>2</sup>	2786.98	4451339
Oxyd. Platinicum	Pt O <sup>2</sup>	1432.08	1559673
Chlorid. Platinico-Kalicum	K Cl + Pt Cl <sup>2</sup>	3050.776	4844103
PLUMBUM	Pb	1294.645	1121507
Oxyd. Plumbicum	Pb O	1394.645	1444637
Chlorid. Plumbicum	Pb Cl	1737.925	2400311
Sulphas Plumbicus	Pb O + S O <sup>3</sup>	1895.395	2776998
RHODIUM	R	651.962	8142223
Oxyd. Rhodicum	R <sup>2</sup> O <sup>3</sup>	1603.924	2051838
Chlorid. Rhodicum	R <sup>2</sup> Cl <sup>3</sup>	2633.764	4205769
Chlorid. Rhodico-Kalicum	K Cl + R <sup>2</sup> Cl <sup>3</sup>	3565.90	5521692
RUTHENIUM	Ru	651.962	8142223
Oxyd. Ruthenosum	Ru O	751.962	8761959
Sesquioxid. Ruthenicum	Ru <sup>2</sup> O <sup>3</sup>	1603.924	2051838
Acid. Ruthenicum	Ru O <sup>3</sup>	951.962	9786279
SELENIUM	Se	495.285	6948552
Acid. Selenosum	Se O <sup>2</sup>	695.285	8421629
Acid. Selenicum	Se O <sup>3</sup>	795.285	9005228
Selenid. Hydricum	H Se	507.785	7056799
SILICIUM	Si	277.778	4436979
Acid. Silicicum	Si O <sup>3</sup>	577.778	7617610
Fluorid. Silicicum	Si F <sup>3</sup>	984.083	9930317
STANNUM	Sn	735.294	8664611
Oxyd. Stannosum	Sn O	835.294	9218394
Oxyd. Stannicum	Sn O <sup>2</sup>	935.294	9709482
STIBIUM	Sb	1612.903	2076082
Acid. Stibiosum	Sb O <sup>3</sup>	1912.903	2816930
Acid. Stibicum	Sb O <sup>5</sup>	2112.903	3248795
STRONTIUM	Sr	547.177	7381278
Oxyd. Stronticum	Sr O	647.177	8110231
Sulphas Stronticus	Sr O + S O <sup>3</sup>	1147.927	0599143
SULPHUR	S	200.75	3026556
Acid. Sulphurosus	S O <sup>2</sup>	400.75	6028735
Acid. Sulphuricum	S O <sup>3</sup>	500.75	6996210
Sulphid. Hydricum	H S	213.25	3288890

NOMINA.	SYMBOLA.	PONDERA ATOMICA.	LOGARITHMUS POND. ATOM.
TANTALUM	Ta	2296.73	3611100
Oxyd. Tantalicum	Ta O <sup>2</sup>	2496.73	3973716
Acid. Tantalicum	Ta O <sup>3</sup>	2596.73	4144268
TELLURIUM	Te	801.76	9040444
Acid. Tellurosum	Te O <sup>2</sup>	1001.76	0007637
Acid. Telluricum	Te O <sup>3</sup>	1101.76	0420870
Tellurid. Hydricum	H Te	814.26	9107631
TERBIUM			
THORIUM	Th	745	8721563
Oxyd. Thoricum	Th O	845	9268567
TITANIUM	Ti	301.30	4789991
Acid. Titanicum	Ti O <sup>2</sup>	501.30	7000977
Chlorid. Titanicum	Ti Cl <sup>2</sup>	1187.86	0747653
URANIUM	U	750.	8750613
Oxyd. Uranosum	U O	850.	9294189
Oxyd. Uranicum	U <sup>2</sup> O <sup>3</sup>	1800.	2552725
Oxyd. Uranoso-Uranicum	U O + U <sup>2</sup> O <sup>3</sup>	2650.	4232459
VANADIUM	V	856.892	9329261
Oxyd. Vanadicum	V O <sup>2</sup>	1056.892	0240306
Acid. Vanadicum	V O <sup>3</sup>	1156.892	0632928
WOLFRAMIUM (TUNGSTEN)	W	1183.36	0731169
Oxyd. Wolframicum	W O <sup>2</sup>	1383.36	1409352
Acid. Wolframicum	W O <sup>3</sup>	1483.36	1712466
YTTRIUM	Y	402.514	6047810
Oxyd. Yttricum	Y O	502.514	7011482
ZINCUM	Zn	406.591	6091578
Oxyd. Zincicum	Zn O	506.591	7046575
Sulphas Zincicus	Zn O + S O <sup>3</sup>	1007.341	0031765
ZIRCONIUM	Zr	419.728	6229679
Oxyd. Zirconicum	Zr <sup>2</sup> O <sup>3</sup>	1139.456	0566976



INVENTA.	INVENIENDA.	LOGARITH- MUS.	1.
I. ALUMINIUM.			
1. Oxydum Aluminicum Al <sup>2</sup> O <sup>3</sup>	Aluminium Al	7263724	0.53257
2. Oxydum Aluminicum Al <sup>2</sup> O <sup>3</sup>	Oxygenium O <sup>3</sup>	6697216	0.46744
II. AMMONIUM.			
1. Oxydum Ammonicum N H <sup>1</sup> O	Ammonium N H <sup>1</sup>	8403348	0.69236
2. Oxydum Ammonicum N H <sup>1</sup> O	Oxygenium O	4880365	0.30764
3. Chloridum Ammonicum N H <sup>1</sup> Cl	Ammonia N H <sup>3</sup>	5024840	0.31804
4. Chlorid. Platin.-Ammonicum N H <sup>1</sup> Cl + Pt Cl <sup>2</sup>	Ammonia N H <sup>3</sup>	8823476	0.07627
5. latinum Pt	Ammonia N H <sup>3</sup>	2368425	0.17252
6. Ammonia N H <sup>3</sup>	Ammonium N H <sup>1</sup>	0248168	1.05881
7. Ammonia N H <sup>3</sup>	Oxydum Ammonicum N H <sup>1</sup> O	1844820	1.52926
III. ARGENTUM.			
1. Oxydum Argenticum Ag O	Argentum Ag	9689582	0.93102
2. Oxydum Argenticum Ag O	Oxygenium O	8387338	0.06898
3. Chloridum Argenticum Ag Cl	Oxydum Argenticum Ag O	9077004	0.80854
4. Chloridum Argenticum Ag Cl	Argentum Ag	8766586	0.75276
5. Sulphidum Argenticum Ag S	Argentum Ag	9397778	0.87052
6. Sulphidum Argenticum Ag S	Oxydum Argenticum Ag O	9708196	0.93502
7. Cyanidum Argenticum Ag Cy	Oxydum Argenticum Ag O	9373240	0.86561
8. Chloridum Natricum Na Cl	Argentum Ag	2664763	1.84704
IV. ARSENICUM.			
1. Acidum Arseniosum As O <sup>3</sup>	Arsenicum As	8794222	0.75757
2. Acidum Arseniosum As O <sup>3</sup>	Oxygenium O <sup>3</sup>	3845880	0.24243
3. Acidum Arsenicum As O <sup>5</sup>	Arsenicum As	8143579	0.65217
4. Acidum Arsenicum As O <sup>5</sup>	Oxygenium O <sup>3</sup>	5413724	0.34783
5. Sulphidum Arseniosum As S <sup>3</sup>	Arsenicum As	7845149	0.60886

2.	3.	4.	5.	6.	7.	8.	9.
1.06513	1.59770	2.13026	2.66283	3.19539	3.72796	4.26052	4.79309
0.93487	1.40231	1.86974	2.33718	2.80461	3.27205	3.73948	4.20692
1.38473	2.07710	2.76946	3.46183	4.15419	4.84656	5.53892	6.23129
0.61527	0.92291	1.23054	1.53818	1.84582	2.15345	2.46109	2.76872
0.63608	0.95413	1.27217	1.59021	1.90825	2.22629	2.54434	2.86238
0.15254	0.22881	0.30508	0.38135	0.45761	0.53388	0.61015	0.68642
0.34504	0.51756	0.69008	0.86261	1.03513	1.20765	1.38017	1.55269
2.11761	3.17642	4.23523	5.29404	6.35284	7.41165	8.47046	9.52926
3.05852	4.58779	6.11705	7.64631	9.17557	10.70483	12.23410	13.76336
1.86204	2.79305	3.72407	4.65509	5.58611	6.51713	7.44814	8.37916
0.13796	0.20695	0.27593	0.34491	0.41389	0.48287	0.55186	0.62084
1.61708	2.42561	3.23415	4.04269	4.85123	5.65977	6.46830	7.27684
1.50553	2.25829	3.01106	3.76382	4.51658	5.26935	6.02211	6.77488
1.74104	2.61155	3.48207	4.35259	5.22311	6.09363	6.96414	7.83466
1.87003	2.80505	3.74007	4.67509	5.61010	6.54512	7.48014	8.41515
1.73123	2.59684	3.46245	4.32807	5.19368	6.05929	6.92490	7.79052
3.69408	5.54112	7.38816	9.23520	11.08224	12.92928	14.77632	16.62336
1.51514	2.27271	3.03028	3.78785	4.54542	5.30299	6.06056	6.81813
0.48486	0.72729	0.96972	1.21215	1.45458	1.69701	1.93944	2.18187
1.30433	1.95650	2.60866	3.26083	3.91300	4.56516	5.21733	5.86949
0.69567	1.04350	1.39134	1.73917	2.08700	2.43484	2.78267	3.13051
1.21771	1.82657	2.43542	3.04428	3.65314	4.26199	4.87085	5.47970

INVENTA.	INVENIENDA.	LOGARITH- MUS.	1.
6. Sulphidum Arseniosum As S <sup>3</sup>	Acidum Arseniosum As O <sup>3</sup>	9050927	0.80370
7. Sulphidum Arsenicum As S <sup>5</sup>	Arsenicum As	6838816	0.48293
8. Sulphidum Arsenicum As S <sup>5</sup>	Acidum Arsenicum As O <sup>5</sup>	8695237	0.74050
9. Arsenicum As	Acidum Arseniosum As O <sup>3</sup>	1205778	1.32001
10. Arsenicum As	Acidum Arsenicum As O <sup>3</sup>	1856421	1.53335
11. Arsenias Ammonico-Magnes. 2 Mg O + NH <sup>1</sup> O + } As O <sup>5</sup> + H O }	Acidum Arseniosum As O <sup>3</sup>	7138985	0.51749
12. Arsenias Ammonico-Magnes. 2 Mg O + NH <sup>1</sup> O + } As O <sup>5</sup> + H O }	Acidum Arsenicum As O <sup>5</sup>	7789628	0.60112
13. Aurum 2 Au	Acidum Arseniosum 3 As O <sup>3</sup>	8779844	0.75507
V. AURUM.			
1. Oxydum Aurosum Au O	Aurum Au	9826836	0.96091
2. Oxydum Aurosum Au O	Oxygenium O	5920434	0.03909
3. Oxydum Auricum Au O <sup>3</sup>	Aurum Au	9499940	0.89124
4. Oxydum Auricum Au O <sup>3</sup>	Oxygenium O <sup>3</sup>	0364751	0.10876
5. Aurum Au	Oxydum Aurosum Au O	0173164	1.04068
6. Aurum Au	Oxydum Auricum Au O <sup>3</sup>	0500060	1.12203
VI. BARIUM.			
1. Oxydum Baricum Ba O	Barium Ba	9520859	0.89554
2. Oxydum Baricum Ba O	Oxygenium O	0189429	0.10446
3. Sulphas Baricus Ba O + S O <sup>3</sup>	Oxydum Baricum Ba O	8172787	0.65657
4. Carbonas Baricus Ba O + C O <sup>2</sup>	Oxydum Baricum Ba O	8903336	0.77684
5. Nitras Baricus Ba O + N O <sup>5</sup>	Oxydum Baricum Ba O	7682358	0.58646
6. Chloridum Baricum Ba Cl	Oxydum Baricum Ba O	8669134	0.73606
7. Chloridum Baricum Ba Cl	Barium Ba	8189993	0.65917
8. Fluosilicetum Baricum 3 Ba F + 2 Si F <sup>3</sup>	Oxydum Baricum 3 Ba O	7400576	0.54961



2.	3.	4.	5.	6.	7.	8.	9.
1.60740	2.41109	3.21479	4.01849	4.82219	5.62589	6.42958	7.23328
0.96585	1.44878	1.93171	2.41464	2.89756	3.38049	3.86342	4.34634
1.48100	2.22149	2.96199	3.70249	4.44299	5.18349	5.92398	6.66448
2.64002	3.96004	5.28005	6.60006	7.92007	9.24008	10.56010	11.88011
3.06671	4.60006	6.13341	7.66677	9.20012	10.73347	12.26682	13.80018
1.03497	1.55246	2.06994	2.58743	3.10492	3.62240	4.13989	4.65737
1.20224	1.80337	2.40449	3.00561	3.60673	4.20785	4.80898	5.41010
1.51013	2.26520	3.02026	3.77533	4.53039	5.28546	6.04052	6.79559
1.92182	2.88274	3.84365	4.80456	5.76547	6.72638	7.68730	8.64821
0.07818	0.11726	0.15635	0.19544	0.23453	0.27362	0.31270	0.35179
1.78248	2.67372	3.56496	4.45620	5.34743	6.23867	7.12991	8.02115
0.21752	0.32628	0.43504	0.54381	0.65257	0.76133	0.87009	0.97885
2.08136	3.12203	4.16271	5.20339	6.24407	7.28475	8.32542	9.36610
2.24407	3.36610	4.48814	5.61017	6.73220	7.85424	8.97627	10.09831
1.79108	2.68663	3.58217	4.47771	5.37325	6.26879	7.16434	8.05988
0.20892	0.31337	0.41783	0.52229	0.62675	0.73121	0.83566	0.94012
1.31313	1.96970	2.62626	3.28283	3.93940	4.59596	5.25253	5.90909
1.55369	2.33053	3.10737	3.88422	4.66106	5.43790	6.21474	6.99159
1.17291	1.75937	2.34582	2.93228	3.51874	4.10519	4.69165	5.27810
1.47212	2.20818	2.94424	3.68030	4.41636	5.15242	5.88848	6.62454
1.31835	1.97752	2.63669	3.29587	3.95504	4.61421	5.27338	5.93256
1.09923	1.64884	2.19846	2.74807	3.29768	3.84730	4.39691	4.94653

INVENTA.	INVENIENDA.	LOGARITH- MUS.	I.
VII. BISMUTHUM.			
1. Oxydum Bismuthicum Bi O <sup>3</sup>	Bismuthum Bi	9536024	0.89868
2. Oxydum Bismuthicum Bi O <sup>3</sup>	Oxygenium O	0057190	0.10133
VIII. BORON.			
1. Acidum Boricum B O <sup>3</sup>	Boron B	4945002	0.31225
2. Acidum Boricum B O <sup>3</sup>	Oxygenium O <sup>3</sup>	8374316	0.68775
IX. BROMUM.			
1. Acidum Bromicum Br O <sup>5</sup>	Bromum Br	8238537	0.66658
2. Acidum Bromicum Br O <sup>5</sup>	Oxygenium O <sup>5</sup>	5229888	0.33418
3. Oxygenium O	Bromum Br	9998349	9.99620
4. Bromidum Argenticum Ag Br	Bromum Br	6289000	0.42550
5. Bromidum Argenticum Ag Br	Bromidum Hydricum H Br	6342875	0.43081
6. Bromidum Hydricum H Br	Bromum Br	9946115	0.98767
7. Bromum Br	Oxygenium O	0001651	0.10004
X. CADMIUM.			
1. Oxydum Cadmicum Cd O	Cadmium Cd	9417561	0.87449
2. Oxydum Cadmicum Cd O	Oxygenium O	0986686	0.12551
3. Sulphidum Cadmicum Cd S	Oxyd. Cadmicum Cd O	9482887	0.88775
XI. CALCIUM.			
1. Oxydum Calcicum Ca O	Calcium Ca	8546868	0.71563
2. Oxydum Calcicum Ca O	Oxygenium O	4538882	0.28437
3. Sulphas Calcicus Ca O + S O <sup>3</sup>	Oxydum Calcicum Ca O	6154679	0.41254
4. Sulphas Calcicus Ca O + S O <sup>3</sup>	Carbonas Calcicus Ca O + C O <sup>2</sup>	8663818	0.73516
5. Carbonas Calcicus Ca O + C O <sup>2</sup>	Oxydum Calcicum Ca O	7490861	0.56116
6. Carbonas Calcicus Ca O + C O <sup>2</sup>	Sulphas Calcicus Ca O + S O <sup>3</sup>	1336182	1.36025

2.	3.	4.	5.	6.	7.	8.	9.
1.79735	2.69603	3.59470	4.49338	5.39205	6.29073	7.18940	8.08808
0.20265	0.30398	0.40530	0.50663	0.60796	0.70928	0.81061	0.91193
0.62450	0.93674	1.24899	1.56124	1.87349	2.18574	2.49798	2.81023
1.37550	2.06326	2.75101	3.43876	4.12651	4.81426	5.50202	6.18977
1.33316	1.99975	2.66633	3.33291	3.99949	4.66607	5.33266	5.99924
0.66836	1.00253	1.33671	1.67089	2.00507	2.33925	2.67342	3.00760
19.99240	29.98860	39.98480	49.98100	59.97720	69.97340	79.96960	89.96580
0.85100	1.27650	1.70200	2.12750	2.55300	2.97850	3.40400	3.82950
0.86163	1.29214	1.72325	2.15407	2.58488	3.01569	3.44650	3.87732
1.97534	2.96301	3.95068	4.93835	5.92601	6.91368	7.90135	8.88902
0.20008	0.30011	0.40015	0.50019	0.60023	0.70027	0.80030	0.90034
1.74899	2.62348	3.49797	4.37246	5.24696	6.12145	6.99594	7.87044
0.25101	0.37652	0.50203	0.62754	0.75304	0.87855	1.00406	1.12956
1.77549	2.66324	3.55098	4.43873	5.32648	6.21422	7.10197	7.98971
1.43125	2.14688	2.86251	3.57814	4.29376	5.00939	5.72502	6.44064
0.56875	0.85312	1.13749	1.42187	1.70624	1.99061	2.27498	2.55936
0.82508	1.23763	1.65017	2.06271	2.47525	2.88779	3.30034	3.71288
1.47032	2.20548	2.94064	3.67580	4.41096	5.14612	5.88128	6.61644
1.12232	1.68348	2.24464	2.80580	3.36696	3.92812	4.48928	5.05044
2.72050	4.08074	5.44099	6.80124	8.16149	9.52174	10.88198	12.24223

INVENTA.	INVENIENDA.	LOGARITH- MUS.	1.
XII. CARBONICUM.			
1. Oxydum Carbonicum C O	Carbonicum C	6320233	0.42857
2. Oxydum Carbonicum C O	Oxygenium O	7569620	0.57143
3. Acidum Oxalicum C <sup>2</sup> O <sup>3</sup>	Carbonicum C <sup>2</sup>	5228788	0.33333
4. Acidum Oxalicum C <sup>2</sup> O <sup>3</sup>	Oxygenium O <sup>3</sup>	8239088	0.66667
5. Acidum Carbonicum C O <sup>2</sup>	Carbonicum C	4357286	0.27273
6. Acidum Carbonicum C O <sup>2</sup>	Oxygenium O <sup>2</sup>	8616973	0.72727
7. Acidum Carbonicum C O <sup>2</sup>	Oxydum Carbonicum C O	8037053	0.63636
8. Acidum Carbonicum C O <sup>2</sup>	Acidum Oxalicum $\frac{1}{2}$ C <sup>2</sup> O <sup>3</sup>	9128498	0.81818
9. Carbonas Calcicus Ca O + C O <sup>2</sup>	Acidum Oxalicum $\frac{1}{2}$ C <sup>2</sup> O <sup>3</sup>	5551568	0.35905
10. Carbonas Calcicus Ca O + C O <sup>2</sup>	Acidum Carbonicum C O <sup>2</sup>	6423070	0.43884
11. Carbonas Baricu Ba O + C O <sup>2</sup>	Acidum Carbonicum C O <sup>2</sup>	3486092	0.22316
XIII. CERIUM.			
1. Oxydum Cerosum Ce O	Cerium Ce	9320668	0.85520
2. Oxydum Cerosum Ce O	Oxygenium O	1607734	0.14480
3. Oxydum Cericum Ce <sup>2</sup> O <sup>3</sup>	Cerium Ce <sup>2</sup>	9017097	0.79746
4. Oxydum Cericum Ce <sup>2</sup> O <sup>3</sup>	Oxygenium O <sup>3</sup>	3065076	0.20254
XIV. CHLORUM.			
1. Acidum Hypochlorosum Cl O	Chlorum Cl	9116544	0.81593
2. Acidum Hypochlorosum Cl O	Oxygenium O	2649763	0.18407
3. Acidum Chlorosum Cl O <sup>3</sup>	Chlorum Cl	7755257	0.59638
4. Acidum Chlorosum Cl O <sup>3</sup>	Oxygenium O <sup>3</sup>	6059689	0.40362
5. Acidum Chloricum Cl O <sup>5</sup>	Chlorum Cl	6720375	0.46994
6. Acidum Chloricum Cl O <sup>5</sup>	Oxygenium O <sup>5</sup>	7243294	0.53007
7. Acidum Perchloricum Cl O <sup>7</sup>	Chlorum Cl	5885255	0.38773

2.	3.	4.	5.	6.	7.	8.	9.
0.85714	1.28571	1.71428	2.14286	2.57143	3.00000	3.42857	3.85714
1.14286	1.71428	2.28571	2.85714	3.42857	4.00000	4.57142	5.14285
0.66667	1.00000	1.33333	1.66667	2.00000	2.33333	2.66666	3.00000
1.33333	2.00000	2.66666	3.33333	4.00000	4.66666	5.33333	5.99999
0.54545	0.81818	1.09091	1.36364	1.63636	1.90909	2.18182	2.45454
1.45454	2.18182	2.90909	3.63636	4.36363	5.09090	5.81818	6.54545
1.27273	1.90909	2.54545	3.18182	3.81818	4.45454	5.09090	5.72727
1.63636	2.45454	3.27272	4.09091	4.90909	5.72727	6.54545	7.36363
0.71810	1.07716	1.43621	1.79526	2.15431	2.51336	2.87242	3.23147
0.87768	1.31652	1.75536	2.19421	2.63305	3.07189	3.51073	3.94957
0.44631	0.66947	0.89262	1.11578	1.33894	1.56209	1.78525	2.00840
1.71040	2.56559	3.42079	4.27599	5.13119	5.98639	6.84158	7.69678
0.28960	0.43440	0.57920	0.72401	0.86881	1.01361	1.15841	1.30321
1.59492	2.39239	3.18985	3.98731	4.78477	5.58223	6.37970	7.17716
0.40508	0.60761	0.81015	1.01269	1.21523	1.41777	1.62030	1.82284
1.63187	2.44780	3.26373	4.07967	4.89560	5.71153	6.52746	7.34340
0.36813	0.55220	0.73627	0.92034	1.10440	1.28847	1.47254	1.65660
1.19277	1.78915	2.38554	2.98192	3.57830	4.17470	4.77107	5.36746
0.80723	1.21085	1.61446	2.01808	2.42170	2.82531	3.22893	3.63254
0.93987	1.40981	1.87974	2.34968	2.81961	3.28955	3.75948	4.22942
1.06013	1.59020	2.12026	2.65033	3.18039	3.71046	4.24052	4.77059
0.77545	1.16318	1.55091	1.93864	2.32636	2.71409	3.10182	3.48954

INVENTA.	INVENIENDA.	LOGARITH- MUS.	1.
8. Acidum Perchloricum Cl O <sup>7</sup>	Oxygenium O <sup>7</sup>	7869454	0.61227
9. Oxygenium O	Chlorum Cl	6466781	4.43280
10. Chlorum Cl	Oxygenium O	3533219	0.22559
11. Chloridum Kalicum K Cl	Chlorum Cl	6771986	0.47555
12. Chloridum Natricum Na Cl	Chlorum Cl	7829300	0.60664
13. Chloridum Baricum Ba Cl	Chlorum Cl	5325344	0.34083
14. Chloridum Calcicum Ca Cl	Chlorum Cl	8047364	0.63788
15. Chloridum Plumbicum Pb Cl	Chlorum Cl	4066470	0.25506
16. Chloridum Argentium Ag Cl	Chlorum Cl	3931123	0.24724
17. Chloridum Argentium Ag Cl	Chloridum Hydricum H Cl	4051895	0.25421
18. Chloridum Hydrargyrosus Hg <sup>2</sup> Cl	Chlorum Cl	1774660	0.15048
19. Chloridum Hydrargyricum Hg Cl	Chlorum Cl	4176186	0.26159
20. Chloridum Hydricum H Cl	Chlorum Cl	9879228	0.97257
21. Chlorum Cl	Chloridum Hydricum H Cl	0120772	1.02820
XV. CHROMIUM.			
1. Oxydum Chromicum Cr <sup>2</sup> O <sup>3</sup>	Chromium Cr <sup>2</sup>	8366078	0.68645
2. Oxydum Chromicum Cr <sup>2</sup> O <sup>3</sup>	Oxygenium O <sup>3</sup>	4963092	0.31355
3. Acidum Chromicum Cr O <sup>3</sup>	Chromium Cr	7181606	0.52259
4. Acidum Chromicum Cr O <sup>3</sup>	Oxygenium O <sup>3</sup>	6788920	0.47741
5. Oxydum Chromicum Cr <sup>2</sup> O <sup>3</sup>	Acidum Chromicum 2 Cr O <sup>3</sup>	1184472	1.31355
6. Chromas Baricus Ba O + Cr O <sup>3</sup>	Acidum Chromicum Cr O <sup>3</sup>	5980056	0.39628
7. Chromas Plumbicus Pb O + Cr O <sup>3</sup>	Acidum Chromicum Cr O <sup>3</sup>	4922259	0.31062
XVI. COBALTUM.			
1. Oxydum Cobalticum Co O	Cobaltum Co	8957656	0.78662
2. Oxydum Cobalticum Co O	Oxygenium O	3291514	0.21338



2.	3.	4.	5.	6.	7.	8.	9.
1.22455	1.83682	2.41909	3.06137	3.67364	4.28591	4.89818	5.51046
8.86560	13.29840	17.73120	22.16400	26.59680	31.02960	35.46240	39.89520
0.45118	0.67677	0.90236	1.12796	1.35355	1.57914	1.80473	2.03032
0.95111	1.42666	1.90221	2.37777	2.85332	3.32887	3.80442	4.27998
1.21328	1.81992	2.42656	3.03320	3.63983	4.24647	4.85311	5.45975
0.68165	1.02248	1.36331	1.70414	2.04496	2.38579	2.72662	3.06744
1.27575	1.91363	2.55150	3.18938	3.82726	4.46513	5.10301	5.74088
0.51013	0.76519	1.02025	1.27532	1.53038	1.78544	2.04050	2.29557
0.49447	0.74171	0.98894	1.23618	1.48342	1.73065	1.97789	2.22512
0.50842	0.76262	1.01683	1.27104	1.52525	1.77946	2.03366	2.28787
0.30095	0.45143	0.60190	0.75238	0.90286	1.05333	1.20381	1.35428
0.52318	0.78477	1.04636	1.30795	1.56953	1.83112	2.09271	2.35430
1.94515	2.91772	3.89030	4.86287	5.83544	6.80802	7.78059	8.75317
2.05640	3.08460	4.11280	5.14100	6.16919	7.19739	8.22559	9.25379
1.37290	2.05934	2.74579	3.43224	4.11869	4.80514	5.49158	6.17803
0.62710	0.94065	1.25420	1.56776	1.88131	2.19486	2.50841	2.82196
1.01518	1.56777	2.09036	2.61295	3.13553	3.65812	4.18071	4.70330
0.95482	1.43223	1.90964	2.38705	2.86446	3.34187	3.81928	4.29669
2.62710	3.94066	5.25421	6.56776	7.88131	9.19486	10.50842	11.82197
0.79257	1.18885	1.58513	1.98142	2.37770	2.77398	3.17026	3.56655
0.62123	0.93185	1.24247	1.55309	1.86370	2.17432	2.48494	2.79555
1.57324	2.35986	3.14648	3.93311	4.71973	5.50635	6.29297	7.07959
0.42676	0.64013	0.85351	1.06689	1.28027	1.49365	1.70702	1.92040

INVENTA.	INVENIENDA.	LOGARITH- MUS.	1.
3. Sesquioxyd. Cobalticum $\text{Co}^2 \text{O}^3$	Cobaltum $\text{Co}^2$	8517398	0.71079
4. Sesquioxyd. Cobalticum $\text{Co}^2 \text{O}^3$	Oxygenium $\text{O}^3$	4612169	0.28921
5. Cobaltum Co	Oxydum Cobalticum Co O	1042344	1.27126
XVII. CUPRUM.			
1. Oxydum Cuprosum $\text{Cu}^2 \text{O}$	Cuprum $\text{Cu}^2$	9483111	0.88779
2. Oxydum Cuprosum $\text{Cu}^2 \text{O}$	Oxygenium O	0500248	0.11221
3. Oxydum Cupricum Cu O	Cuprum Cu	9021250	0.79822
4. Oxydum Cupricum Cu O	Oxygenium O	3048687	0.20178
5. Oxydum Cupricum Cu O	Oxydum Cuprosum $\frac{1}{2} \text{Cu}^2 \text{O}$	9538139	0.89911
6. Sulphidum Cupricum Cu S	Cuprum Cu	8217551	0.66337
XVIII. CYANOGENIUM.			
1. Cyanogenium $\text{N C}^2$	Nitrogenium N	7312234	0.53855
2. Cyanogenium $\text{N C}^2$	Carbon $\text{C}^2$	6641278	0.46145
3. Cyanidum Argenticum Ag Cy	Cyanogenium Cy	2880213	0.19410
4. Cyanidum Argenticum Ag Cy	Cyanidum Hydricum H Cy	3044088	0.20156
5. Cyanidum Hydrargyricum Hg Cy	Cyanidum Hydricum H Cy	3306983	0.21414
6. Cyanidum Hydricum H Cy	Cyanogenium Cy	9836125	0.96297
XIX. DIDYMIUM.			
1. Oxydum Didymicum Di O	Didymium Di	9350592	0.86111
2. Oxydum Didymicum Di O	Oxygenium O	1426675	0.13889
XX. FERRUM.			
1. Oxydum Ferrosium Fe O	Ferrum Fe	8910007	0.77804
2. Oxydum Ferrosium Fe O	Oxygenium O	3462792	0.22196
3. Oxydum Ferricum $\text{Fe}^2 \text{O}^3$	Ferrum $\text{Fe}^2$	8452940	0.70032
4. Oxydum Ferricum $\text{Fe}^2 \text{O}^3$	Oxygenium $\text{O}^3$	4766638	0.29968

2.	3.	4.	5.	6.	7.	8.	9.
1.42157	2.13236	2.84315	3.55394	4.26472	4.97551	5.68630	6.39708
0.57842	0.86764	1.15685	1.44606	1.73527	2.02448	2.31370	2.60291
2.54252	3.81378	5.08504	6.35630	7.62756	8.89882	10.17008	11.44134
1.77558	2.66338	3.55117	4.43896	5.32675	6.21454	7.10234	7.99013
0.22442	0.33662	0.44883	0.56104	0.67325	0.78546	0.89766	1.00987
1.59645	2.39467	3.19290	3.99112	4.78934	5.58757	6.38579	7.18402
0.40355	0.60533	0.80710	1.00888	1.21066	1.41243	1.61421	1.81598
1.79822	2.69734	3.59645	4.49556	5.39467	6.29378	7.19290	8.09201
1.32674	1.99011	2.65348	3.31685	3.98021	4.64358	5.30695	5.97032
1.07709	1.61564	2.15419	2.69274	3.23128	3.76983	4.30838	4.84692
0.92291	1.38436	1.84581	2.30727	2.76872	3.23017	3.69162	4.15308
0.38820	0.58229	0.77639	0.97049	1.16459	1.35869	1.55278	1.74688
0.40312	0.60469	0.80625	1.00781	1.20937	1.41093	1.61250	1.81406
0.42828	0.64242	0.85656	1.07070	1.28484	1.49898	1.71312	1.92726
1.92594	2.88891	3.85188	4.81485	5.77782	6.74079	7.70376	8.66673
1.72222	2.58333	3.44444	4.30555	5.16667	6.02778	6.88889	7.75000
0.27778	0.41667	0.55556	0.69445	0.83333	0.97222	1.11111	1.25000
1.55608	2.33411	3.11215	3.89019	4.66823	5.44627	6.22430	7.00234
0.41392	0.66589	0.88785	1.10981	1.33177	1.55373	1.77570	1.99766
1.40063	2.10095	2.80126	3.50158	4.20190	4.90221	5.60253	6.30284
0.59937	0.89905	1.19874	1.49842	1.79810	2.09779	2.39747	2.69716

INVENTA.	INVENIENDA.	LOGARITH- MUS.	1.
5. Oxydum Ferricum $\text{Fe}^2 \text{O}^3$	Oxydum Ferrosun $2 \text{Fe O}$	9542933	0.90011
6. Ferrum $\text{Fe}^2$	Oxydum Ferricum $\text{Fe}^2 \text{O}^3$	1547060	1.42793
7. Ferrum $\text{Fe}$	Oxydum Ferrosun $\text{Fe O}$	1089993	1.28529
8. Ferrum $\text{Fe}$	Oxygenium $\text{O}$	4552785	0.28529
9. Ferrum $\text{Fe}^2$	Oxygenium $\text{O}^3$	6313698	0.42793
10. Oxygenium $\text{O}$	Oxydum Ferrosun $2 \text{Fe O}$	9547508	9.01054
11. Oxygenium $\text{O}$	Oxydum Ferrosun $\text{Fe O}$	6537208	4.50527
12. Oxygenium $\text{O}^3$	Oxydum Ferricum $\text{Fe}^2 \text{O}^3$	5233362	3.33685
13. Sulphur $\text{S}$	Oxydum Ferricum $\text{Fe}^2 \text{O}^3$	6978019	4.98657
14. Chlorum $\text{Cl}$	Oxydum Ferricum $\text{Fe}^2 \text{O}^3$	3537794	2.25829
15. Aurum $\text{Au}$	Oxydum Ferrosun $6 \text{Fe O}$	0412319	1.09959
16. Cuprum $2 \text{Cu}$	Oxydum Ferricum $\text{Fe}^2 \text{O}^3$	1021712	1.26524
XXI. FLUOR.			
1. Oxygenium $\text{O}$	Fluor $\text{F}$	3718710	2.35435
2. Fluoridum Hydricum $\text{H F}$	Fluor $\text{F}$	9775331	0.94958
3. Oxydum Hydricum $\text{H O}$	Fluoridum Hydricum $\text{H F}$	3431854	2.20387
4. Fluoridum Calcicum $\text{Ca F}$	Fluor $\text{F}$	6842654	0.48335
5. Fluoridum Calcicum $\text{Ca F}$	Fluoridum Hydricum $\text{H F}$	7067323	0.50902
6. Fluoridum Natricum $\text{Na F}$	Fluor $\text{F}$	6534773	0.45027
7. Silico-Fluorid. Natricum $3 \text{Na F} + 2 \text{Si F}^3$	Natrium $3 \text{Na}$	3870534	0.24381
XXII. GLYCIUM.			
1. Oxydum Glycinicum $\text{Be}^2 \text{O}^3$	Glycium $\text{Be}^2$	5651623	0.36742
2. Oxydum Glycinicum $\text{Be}^2 \text{O}^3$	Oxygenium $\text{O}^3$	8011158	0.63258
XXIII. HYDRARGYRUM.			
1. Oxydum Hydrargyrosun $\text{Hg}^2 \text{O}$	Hydrargyrum $\text{Hg}^2$	9829803	0.96157

2.	3.	4.	5.	6.	7.	8.	9.
1.80021	2.70032	3.60042	4.50053	5.40063	6.30074	7.20084	8.10095
2.85585	4.28378	5.71171	7.13964	8.56756	9.99549	11.42342	12.85134
2.57057	3.85586	5.14114	6.42643	7.71171	8.99700	10.28228	11.56757
0.57057	0.85586	1.14114	1.42643	1.71171	1.99700	2.28228	2.56757
0.85585	1.28378	1.71171	2.13964	2.56756	2.99549	3.42342	3.85134
18.02108	27.03162	36.04216	45.05270	54.06324	63.07378	72.08432	81.09486
9.01054	13.51581	18.02108	22.52635	27.03162	31.53689	36.04216	40.54743
6.67370	10.01054	13.34739	16.68424	20.02108	23.35793	26.69478	30.03162
9.97314	14.95971	19.94628	24.93285	29.91942	34.90599	39.89256	44.87913
4.51658	6.77487	9.03316	11.29145	13.54973	15.80802	18.06631	20.32460
2.19919	3.29878	4.39837	5.49797	6.59756	7.69715	8.79674	9.89634
2.53047	3.79571	5.06094	6.32618	7.59141	8.85665	10.12188	11.38712
4.70870	7.06305	9.41740	11.77175	14.12610	16.48045	18.83480	21.18915
1.89917	2.84875	3.79833	4.74792	5.69750	6.64708	7.59666	8.54625
4.40773	6.61160	8.81547	11.01934	13.22320	15.42707	17.63094	19.83480
0.96671	1.45006	1.93342	2.41677	2.90012	3.38348	3.86683	4.35019
1.01803	1.52705	2.03607	2.54509	3.05410	3.56312	4.07214	4.58115
0.90055	1.35082	1.80110	2.25137	2.70164	3.15192	3.60219	4.05247
0.48762	0.73143	0.97524	1.21906	1.46287	1.70668	1.95049	2.19430
0.73484	1.10226	1.46968	1.83710	2.20452	2.57194	2.93936	3.30678
1.26516	1.89774	2.53032	3.16290	3.79548	4.42806	5.06064	5.69322
1.92314	2.88471	3.84628	4.80785	5.76941	6.73098	7.69255	8.65412



INVENTA.	INVENIENDA.	LOGARITH- MUS.	1.
2. Oxydum Hydrargyrosium Hg <sup>2</sup> O	Oxygenium O	5846860	0.03843
3. Oxydum Hydrargyricum Hg O	Hydrargyrum Hg	9666025	0.92598
4. Oxydum Hydrargyricum Hg O	Oxygenium O	8693383	0.07402
5. Chloridum Hydrargyrosium Hg <sup>2</sup> Cl	Hydrargyrum Hg <sup>2</sup>	9291618	0.84950
6. Chloridum Hydrargyrosium Hg <sup>2</sup> Cl	Oxyd. Hydrargyrosium Hg <sup>2</sup> O	9461815	0.88345
7. Chloridum Hydrargyrosium Hg <sup>2</sup> Cl	Oxyd. Hydrargyricum 2 Hg O	9625592	0.91740
8. Chloridum Hydrargyricum Hg Cl	Hydrargyrum Hg	8682739	0.73837
9. Chloridum Hydrargyricum Hg Cl	Oxyd. Hydrargyricum Hg O	9016714	0.79739
10. Sulphidum Hydrargyricum Hg S	Hydrargyrum Hg	9353664	0.86172
11. Sulphidum Hydrargyricum Hg S	Oxyd. Hydrargyricum Hg O	9687639	0.93060
12. Sulphidum Hydrargyricum Hg S	Chlorid. Hydrargyric. Hg Cl	0670925	1.16706
13. Hydrargyrum Hg	Oxyd. Hydrargyrosium $\frac{1}{2}$ Hg <sup>2</sup> O	0170198	1.03997
14. Hydrargyrum Hg	Oxyd. Hydrargyricum Hg O	0333975	1.07994
15. Hydrargyrum Hg	Chlorid. Hydrargyros. $\frac{1}{2}$ Hg <sup>2</sup> Cl	0708383	1.17717
16. Hydrargyrum Hg	Chlorid. Hydrargyric. Hg Cl	1317261	1.35434
XXIV. HYDROGENIUM.			
1. Oxydum Hydricum H O	Hydrogenium H	0457575	0.11111
2. Oxydum Hydricum H O	Oxygenium O	9488475	0.88889
3. Chloridum Hydricum H Cl	Hydrogenium H	4381547	0.02743
4. Bromidum Hydricum H Br	Hydrogenium H	0916780	0.01235
5. Iodidum Hydricum H I	Hydrogenium H	8931996	0.00782
6. Fluoridum Hydricum H F	Hydrogenium H	7025721	0.05042
7. Cyanidum Hydricum H Cy	Hydrogenium H	5685590	0.03703
8. Sulphidum Hydricum H S	Hydrogenium H	7680210	0.05862
9. Selenidum Hydricum H Se	Hydrogenium H	3912301	0.02462



2.	3.	4.	5.	6.	7.	8.	9.
0.07686	0.11529	0.15372	0.19216	0.23059	0.26902	0.30745	0.34588
1.85196	2.77795	3.70393	4.62991	5.55589	6.48187	7.40786	8.33384
0.14804	0.22205	0.29607	0.37009	0.44411	0.51813	0.59214	0.66616
1.69899	2.54849	3.39799	4.24749	5.09698	5.94648	6.79598	7.64547
1.76690	2.65035	3.53380	4.41725	5.30069	6.18414	7.06759	7.95104
1.83480	2.75220	3.66960	4.58701	5.50441	6.42181	7.33921	8.25661
1.47674	2.21511	2.95348	3.69185	4.43021	5.16858	5.90695	6.64532
1.59478	2.39217	3.18956	3.98696	4.78435	5.58174	6.37913	7.17652
1.72344	2.58516	3.44688	4.30860	5.17032	6.03204	6.89376	7.75548
1.86120	2.79181	3.72241	4.65301	5.58361	6.51421	7.44482	8.37542
2.33412	3.50117	4.66823	5.83529	7.00235	8.16941	9.33646	10.50352
2.07993	3.11990	4.15987	5.19984	6.23980	7.27977	8.31974	9.35970
2.15987	3.23981	4.31974	5.39968	6.47961	7.55955	8.63948	9.71942
2.35433	3.53150	4.70867	5.88584	7.06300	8.24017	9.41734	10.59450
2.70867	4.06301	5.41734	6.77168	8.12601	9.48035	10.83468	12.18902
0.22222	0.33333	0.44444	0.55556	0.66667	0.77778	0.88889	1.00000
1.77778	2.66667	3.55556	4.44445	5.33333	6.22222	7.11111	8.00000
0.05485	0.08228	0.10970	0.13713	0.16456	0.19198	0.21941	0.24683
0.02470	0.03705	0.04940	0.06175	0.07410	0.08645	0.09880	0.11115
0.01564	0.02346	0.03128	0.03910	0.04692	0.05474	0.06256	0.07038
0.10083	0.15125	0.20166	0.25208	0.30250	0.35291	0.40333	0.45374
0.07406	0.11109	0.14812	0.18515	0.22218	0.25921	0.29624	0.33327
0.11723	0.17585	0.23447	0.29309	0.35170	0.41032	0.46894	0.52755
0.04923	0.07385	0.09847	0.12309	0.14770	0.17232	0.19694	0.22155

INVENTA.	INVENIENDA.	LOGARITH- MUS.	1.
10. Telluridum Hydricum H Te	Hydrogenium H	1861469	0.01535
XXV. IODUM.			
1. Acidum Iodicum I O <sup>2</sup>	Iodum I	8809884	0.76031
2. Acidum Iodicum I O <sup>2</sup>	Oxygenium O <sup>2</sup>	3796574	0.23969
3. Acidum Periodicum I O <sup>7</sup>	Iodum I	8412263	0.69379
4. Acidum Periodicum I O <sup>7</sup>	Oxygenium O <sup>7</sup>	4860233	0.30621
5. Oxygenium O	Iodum I	2003010	15.85992
6. Iodidum Argenticum Ag I	Iodum I	7325964	0.54025
7. Iodidum Argenticum Ag I	Iodidum Hydricum H I	7360058	0.54451
8. Iodidum Cuprosum Cu <sup>2</sup> I	Iodum I	8242368	0.66716
9. Iodidum Cuprosum Cu <sup>2</sup> I	Iodidum Hydricum H I	8276462	0.67243
10. Iodidum Palladosum Pd I	Iodum I	8478350	0.70443
11. Iodidum Palladosum Pd I	Iodidum Hydricum H I	8512444	0.70998
12. Iodidum Hydricum H I	Iodum I	9965906	0.99218
13. Iodum I	Oxygenium O	7996990	0.06305
XXVI. IRIDIUM.			
1. Oxydum Iridosum Ir O	Iridium Ir	9661086	0.92493
2. Oxydum Iridosum Ir O	Oxygenium O	8754697	0.07507
3. Sesquioxyd. Iridosum Ir <sup>2</sup> O <sup>3</sup>	Iridium Ir <sup>2</sup>	9501057	0.89147
4. Sesquioxyd. Iridosum Ir <sup>2</sup> O <sup>3</sup>	Oxygenium O <sup>3</sup>	0355581	0.10853
5. Oxydum Iridicum Ir O <sup>2</sup>	Iridium Ir	9346717	0.86034
6. Oxydum Iridicum Ir O <sup>2</sup>	Oxygenium O <sup>2</sup>	1450628	0.13966
7. Sesquioxyd. Iridicum Ir O <sup>3</sup>	Iridium Ir	9053575	0.80419
8. Sesquioxyd. Iridicum Ir O <sup>3</sup>	Oxygenium O <sup>3</sup>	2918399	0.19581
9. Chlorid. Iridico-Kalicum K Cl + Ir Cl <sup>2</sup>	Iridium Ir	6062285	0.40386

2.	3.	4.	5.	6.	7.	8.	9.
0.03070	0.04605	0.06140	0.07676	0.09211	0.10746	0.12281	0.13816
1.52061	2.28092	3.04122	3.80153	4.56184	5.32214	6.08245	6.84275
0.47939	0.71908	0.95878	1.19847	1.43816	1.67786	1.91755	2.15725
1.38757	2.08136	2.77515	3.46894	4.16272	4.85651	5.55030	6.24408
0.61243	0.91864	1.22485	1.53107	1.83728	2.14349	2.44970	2.75592
31.71981	47.57976	63.43968	79.29960	95.15952	111.01944	126.87936	142.73928
1.08050	1.62076	2.16101	2.70126	3.24151	3.78176	4.32202	4.86227
1.08902	1.63353	2.17804	2.72255	3.26706	3.81157	4.35608	4.90059
1.33432	2.00148	2.66864	3.33580	4.00296	4.67012	5.33728	6.00444
1.34486	2.01729	2.68972	3.36215	4.03457	4.70700	5.37943	6.05186
1.40885	2.11328	2.81770	3.52213	4.22655	4.93098	5.63540	6.33983
1.41995	2.12993	2.83991	3.54989	4.25986	4.96984	5.67982	6.38979
1.98436	2.97654	3.96872	4.96090	5.95308	6.94526	7.93744	8.92962
0.12610	0.18916	0.25221	0.31526	0.37831	0.44136	0.50442	0.56747
1.84986	2.77479	3.69972	4.62465	5.54958	6.47451	7.39944	8.32437
0.15014	0.22521	0.30028	0.37535	0.45042	0.52549	0.60056	0.67563
1.78294	2.67440	3.56587	4.45734	5.34881	6.24028	7.13174	8.02321
0.21706	0.32560	0.43413	0.54266	0.65119	0.75972	0.86826	0.97679
1.72069	2.58103	3.44137	4.30172	5.16206	6.02240	6.88274	7.74309
0.27931	0.41897	0.55863	0.69829	0.83794	0.97760	1.11726	1.25691
1.60837	2.41256	3.21675	4.02094	4.82512	5.62931	6.43350	7.23768
0.39162	0.58744	0.78325	0.97906	1.17487	1.37068	1.56650	1.76231
0.80772	1.21157	1.61543	2.01929	2.42315	2.82701	3.23086	3.63472

INVENTA.	INVENIENDA.	LOGARITH- MUS.	I.
10. Chlorid. Iridico-Ammonicum $N II^1 Cl + Ir Cl^2$	Iridium Ir	6455050	0.44208
11. Iridium Ir	Chloridum Iridicum $Ir Cl^2$	2354183	1.71956
XXVII. KALIUM.			
1. Oxydum Kalicum K O	Kalium K	9191718	0.83018
2. Oxydum Kalicum K O	Oxygenium O	2299909	0.16982
3. Sulphas Kalicus $K O + S O^3$	Oxydum Kalicum K O	7327396	0.54043
4. Chloridum Kalicum K Cl	Oxydum Kalicum K O	8005296	0.63173
5. Chloridum Kalicum K Cl	Kalium K	7197014	0.52445
6. Carbonas Kalicus $K O + C O^2$	Oxydum Kalicum K O	8335677	0.68166
7. Nitras Kalicus $K O + N O^3$	Oxydum Kalicum K O	6682909	0.46590
8. Chlorid. Platinico-Kalicum $Pt Cl^2 + K Cl$	Oxydum Kalicum K O	2855988	0.19302
9. Chlorid. Platinico-Kalicum $Pt Cl^2 + K Cl$	Chloridum Kalicum K Cl	4850692	0.30554
10. Platinum Pt	Oxydum Kalicum K O	6793701	0.47794
11. Sulphas Baricus $Ba O + S O^3$	Sulphas Kalicus $K O + S O^3$	8734911	0.74729
12. Chloridum Argenticum Ag Cl	Chloridum Kalicum K Cl	7159137	0.51989
XXVIII. LANTHANUM.			
1. Oxydum Lanthanicum La O	Lanthanium La	9317889	0.85465
2. Oxydum Lanthanicum La O	Oxygenium O	1624116	0.14535
XXIX. LITHIUM.			
1. Oxydum Lithicum L O	Lithium L	6555138	0.45239
2. Oxydum Lithicum L O	Oxygenium O	7384707	0.54761
3. Sulphas Lithicus $L O + S O^3$	Oxydum Lithicum L O	4268784	0.26723
4. Carbonas Lithicus $L O + C O^2$	Oxydum Lithicum L O	6010319	0.39905
5. Chloridum Lithicum L Cl	Oxydum Lithicum L O	5406327	0.34724
6. Chloridum Lithicum L Cl	Lithium L	1961465	1.57089

2.	3.	4.	5.	6.	7.	8.	9.
0.88417	1.32625	1.76834	2.21042	2.65250	3.09459	3.53667	3.97876
3.43913	5.15869	6.87826	8.59782	10.31738	12.03695	13.75651	15.47608
1.66036	2.49054	3.32072	4.15090	4.98107	5.81125	6.64143	7.47161
0.33964	0.50946	0.67928	0.84911	1.01893	1.18875	1.35857	1.52839
1.08086	1.62129	2.16172	2.70215	3.24258	3.78301	4.32344	4.86387
1.26345	1.89518	2.52691	3.15864	3.79036	4.42209	5.05382	5.68554
1.04889	1.57334	2.09779	2.62224	3.14668	3.67113	4.19558	4.72002
1.36332	2.04498	2.72664	3.40830	4.08996	4.77162	5.45328	6.13494
0.93180	1.39769	1.86359	2.32949	2.79539	3.26129	3.72718	4.19308
0.38604	0.57905	0.77207	0.96509	1.15811	1.35113	1.54414	1.73716
0.61108	0.91662	1.22216	1.52771	1.83325	2.13879	2.44433	2.74987
0.95587	1.43381	1.91175	2.38969	2.86762	3.34556	3.82350	4.30143
1.49459	2.24188	2.98917	3.73647	4.48376	5.23105	5.97834	6.72564
1.03979	1.55968	2.07957	2.59947	3.11936	3.63925	4.15914	4.67904
1.70930	2.56395	3.41860	4.27326	5.12791	5.98256	6.83721	7.69186
0.29070	0.43605	0.58140	0.72675	0.87209	1.01744	1.16279	1.30814
0.90478	1.35717	1.80956	2.26196	2.71435	3.16674	3.61913	4.07152
1.09522	1.64283	2.19044	2.73805	3.28565	3.83326	4.38087	4.92848
0.53445	0.80168	1.06890	1.33613	1.60336	1.87058	2.13781	2.40503
0.79811	1.19716	1.59622	1.99527	2.39432	2.79338	3.19243	3.59149
0.69448	1.04173	1.38897	1.73621	2.08345	2.43069	2.77794	3.12518
3.14179	4.71268	6.28357	7.85447	9.42536	10.99625	12.56714	14.13804



INVENTA.	INVENIENDA.	LOGARITH- MUS.	1.
7. Phosphas Natrico-Lithicus $\left. \begin{array}{l} 2 \text{ Na O} + \text{P O}^5 + \\ 2 \text{ L O} + \text{P O}^5 \end{array} \right\}$	Oxydum Lithicum $2 \text{ L O}$	0966511	0.12493
XXX. MAGNESIUM.			
1. Oxydum Magnesium $\text{Mg O}$	Magnesium $\text{Mg}$	7871854	0.61261
2. Oxydum Magnesium $\text{Mg O}$	Oxygenium $\text{O}$	5881464	0.38739
3. Sulphas Magnesium $\text{Mg O} + \text{S O}^3$	Oxydum Magnesium $\text{Mg O}$	5316754	0.34015
4. Phosphas Magnesium $2 \text{ Mg O} + \text{P O}^5$	Oxydum Magnesium $2 \text{ Mg O}$	5642815	0.36668
5. Phosphas Magnesium $2 \text{ Mg O} + \text{P O}^5$	Carbonas Magnesium $2 (\text{Mg O} + \text{C O}^2)$	8792683	0.75730
6. Chloridum Argentium $\text{Ag Cl}$	Chloridum Magnesium. $\text{Mg Cl}$	5256114	0.33544
7. Sulphas Baricus $\text{Ba O} + \text{S O}^3$	Sulphas Magnesium $\text{Mg O} + \text{S O}^3$	7163998	0.52048
XXXI. MANGANIUM.			
1. Oxydum Manganosum $\text{Mn O}$	Manganium $\text{Mn}$	8893696	0.77512
2. Oxydum Manganosum $\text{Mn O}$	Oxygenium $\text{O}$	3519485	0.22488
3. Oxydum Manganicum $\text{Mn}^2 \text{ O}^3$	Manganium $\text{Mn}^2$	8430934	0.69678
4. Oxydum Manganicum $\text{Mn}^2 \text{ O}^3$	Oxygenium $\text{O}^3$	4817635	0.30322
5. Binoxydum Manganicum $\text{Mn O}^2$	Manganium $\text{Mn}$	8012765	0.63281
6. Binoxydum Manganicum $\text{Mn O}^2$	Oxygenium $\text{O}^2$	5648854	0.36719
7. Acidum Manganicum $\text{Mn O}^3$	Manganium $\text{Mn}$	7280742	0.53466
8. Acidum Manganicum $\text{Mn O}^3$	Oxygenium $\text{O}^3$	6677744	0.46534
9. Acidum Permanganicum $\text{Mn}^2 \text{ O}^7$	Manganium $\text{Mn}^2$	6956339	0.49617
10. Acidum Permanganicum $\text{Mn}^2 \text{ O}^7$	Oxygenium $\text{O}^7$	7022807	0.50383
11. Oxyd. Manganoso-Manganic. $\text{Mn O} + \text{Mn}^2 \text{ O}^3$	Oxydum Manganosum $3 \text{ Mn O}$	9686078	0.93027
12. Oxyd. Manganoso-Manganic. $\text{Mn O} + \text{Mn}^2 \text{ O}^3$	Oxydum Manganicum $1\frac{1}{2} \text{ Mn}^2 \text{ O}^3$	0148842	1.03487
13. Oxyd. Manganoso-Manganic. $\text{Mn O} + \text{Mn}^2 \text{ O}^3$	Binoxyd. Manganicum $3 \text{ Mn O}^2$	0567010	1.13947
14. Sulphas Manganosus $\text{Mn O} + \text{S O}^3$	Oxydum Manganosum $\text{Mn O}$	6724203	0.47035
15. Acidum Carbonicum $2 \text{ C O}^2$	Binoxyd. Manganicum $\text{Mn O}^2$	9957819	0.99034



2.	3.	4.	5.	6	7.	8.	9.
0.24985	0.37478	0.49970	0.62463	0.74956	0.87448	0.99941	1.12433
1.22322	1.83784	2.45045	3.06306	3.67567	4.28828	4.90090	5.51351
0.77478	1.16216	1.54955	1.93694	2.32433	2.71172	3.09910	3.48649
0.68031	1.02046	1.36062	1.70077	2.04092	2.38108	2.72123	3.06139
0.73335	1.10003	1.46670	1.83338	2.20005	2.56673	2.93340	3.30008
1.51460	2.27190	3.02920	3.78650	4.54380	5.30110	6.05840	6.81570
0.67087	1.00631	1.34175	1.67719	2.01262	2.34806	2.68350	3.01893
1.04095	1.56143	2.08190	2.60238	3.12285	3.64333	4.16380	4.68428
1.55024	2.32536	3.10048	3.87561	4.65073	5.42585	6.20097	6.97609
0.44976	0.67463	0.89951	1.12439	1.34927	1.57415	1.79902	2.02390
1.39355	2.09033	2.78710	3.48388	4.18066	4.87743	5.57421	6.27098
0.60645	0.90967	1.21290	1.51612	1.81934	2.12257	2.42579	2.72902
1.26563	1.89845	2.53126	3.16408	3.79689	4.42971	5.06252	5.69534
0.73437	1.10156	1.46874	1.83593	2.20311	2.57030	2.93748	3.30467
1.06931	1.60397	2.13862	2.67328	3.20794	3.74259	4.27725	4.81190
0.93069	1.39603	1.86138	2.32672	2.79206	3.25741	3.72275	4.18810
0.99235	1.48852	1.98470	2.48087	2.97704	3.47322	3.96939	4.46557
1.00765	1.51148	2.01530	2.51913	3.02296	3.52678	4.03061	4.53443
1.86053	2.79080	3.72107	4.65134	5.58160	6.51187	7.44214	8.37240
2.06973	3.10460	4.13946	5.17433	6.20920	7.24406	8.27893	9.31379
2.27893	3.41840	4.55786	5.69733	6.83679	7.97626	9.11572	10.25519
0.94070	1.41105	1.88140	2.35175	2.82209	3.29244	3.76279	4.23314
1.98067	2.97101	3.96134	4.95168	5.94201	6.93235	7.92268	8.91302

INVENTA.	INVENIENDA.	LOGARITH- MUS.	1.
XXXII. MOLYBDENUM.			
1. Oxydum Molybdosum Mo O	Molybdenum Mo	9318924	0.85486
2. Oxydum Molybdosum Mo O	Oxygenium O	1618022	0.14515
3. Oxydum Molybdicum Mo O <sup>2</sup>	Molybdenum Mo	8730319	0.74650
4. Oxydum Molybdicum Mo O <sup>2</sup>	Oxygenium O <sup>2</sup>	4039717	0.25350
5. Acidum Molybdicum Mo O <sup>3</sup>	Molybdenum Mo	8212051	0.66253
6. Acidum Molybdicum Mo O <sup>3</sup>	Oxygenium O <sup>3</sup>	5282362	0.33747
7. Sulphidum Molybdicum Mo S <sup>2</sup>	Molybdenum Mo	7742507	0.59464
8. Bisulphidum Molybdicum Mo S <sup>3</sup>	Molybdenum Mo	6940997	0.49442
9. Molybdenum Mo	Acidum Molybdicum Mo O <sup>3</sup>	1787949	1.50937
XXXIII. NATRIUM.			
1. Oxydum Natrium Na O	Natrium Na	8703408	0.74189
2. Oxydum Natrium Na O	Oxygenium O	4118011	0.25811
3. Sulphas Natrius Na O + S O <sup>3</sup>	Oxydum Natrium Na O	6396954	0.43621
4. Carbonas Natrius Na O + C O <sup>2</sup>	Oxydum Natrium Na O	7670556	0.58487
5. Chloridum Natrium Na Cl	Oxydum Natrium Na O	7244508	0.53021
6. Chloridum Natrium Na Cl	Natrium Na	5947916	0.39336
7. Chloridum Argentium Ag Cl	Carbonas Natrius Na O + C O <sup>2</sup>	5675775	0.36947
8. Chloridum Argentium Ag Cl	Chloridum Natrium Na Cl	6101823	0.40755
9. Sulphas Baricus Ba O + S O <sup>3</sup>	Sulphas Natrius Na O + S O <sup>3</sup>	7847251	0.60915
10. Sulphas Natrius Na O + S O <sup>3</sup>	Nitras Natrius Na O + N O <sup>5</sup>	0778234	1.19625
11. Sulphas Natrius Na O + S O <sup>3</sup>	Carbonas Natrius Na O + C O <sup>2</sup>	8726398	0.74583
12. Nitras Natrius Na O + N O <sup>5</sup>	Carbonas Natrius Na O + C O <sup>2</sup>	7948164	0.62347
XXXIV. NICCOLUM.			
1. Oxydum Niccolicum Ni O	Niccolum Ni	8959363	0.78693
2. Oxydum Niccolicum Ni O	Oxygenium O	3285217	0.21307

2.	3.	4.	5.	6.	7.	8.	9.
1.70971	2.56457	3.41942	4.27428	5.12913	5.98399	6.83884	7.69370
0.29029	0.43544	0.58058	0.72573	0.87087	1.01602	1.16116	1.30631
1.49301	2.23951	2.98602	3.73252	4.47902	5.22553	5.97203	6.71854
0.50699	0.76049	1.01398	1.26748	1.52098	1.77447	2.02797	2.28146
1.32506	1.98759	2.65012	3.31265	3.97517	4.63770	5.30023	5.96276
0.67494	1.01241	1.34988	1.68736	2.02483	2.36230	2.69977	3.03724
1.18927	1.78391	2.37854	2.97318	3.56781	4.16245	4.75708	5.35172
0.98885	1.48327	1.97770	2.47212	2.96654	3.46097	3.95539	4.44982
3.01873	4.52810	6.03747	7.54684	9.05620	10.56557	12.07494	13.58430
1.48378	2.22568	2.96757	3.70946	4.45135	5.19324	5.93514	6.67703
0.51622	0.77432	1.03243	1.29054	1.54865	1.80676	2.06486	2.32297
0.87242	1.30863	1.74484	2.18105	2.61725	3.05346	3.48967	3.92588
1.16973	1.75460	2.33946	2.92433	3.50919	4.09406	4.67892	5.26379
1.06043	1.59064	2.12085	2.65107	3.18128	3.71149	4.24170	4.77192
0.78672	1.18008	1.57344	1.96681	2.36017	2.75353	3.14689	3.54025
0.73894	1.10841	1.47788	1.84735	2.21681	2.58628	2.95575	3.32522
0.81510	1.22265	1.63020	2.03776	2.44531	2.85286	3.26041	3.66796
1.21830	1.82745	2.43660	3.04575	3.65490	4.26405	4.87320	5.48235
2.39251	3.58876	4.78502	5.98127	7.17752	8.37378	9.57003	10.76629
1.49166	2.23749	2.98332	3.72915	4.47498	5.22081	5.96664	6.71247
1.24694	1.87041	2.49388	3.11736	3.74083	4.36430	4.98777	5.61124
1.57386	2.36079	3.14772	3.93465	4.72158	5.50851	6.29544	7.08237
0.42614	0.63921	0.85228	1.06535	1.27841	1.49148	1.70455	1.91762

INVENTA.	INVENIENDA.	LOGARITH- MUS.	1.
XXXV. NITROGENIUM.			
1. Oxydum Nitrosum N O	Nitrogenium N	8037595	0.63644
2. Oxydum Nitrosum N O	Oxygenium O	5605726	0.36356
3. Oxydum Nitricum N O <sup>2</sup>	Nitrogenium N	6690862	0.46675
4. Oxydum Nitricum N O <sup>2</sup>	Oxygenium O <sup>2</sup>	7269293	0.53325
5. Acidum Nitrosum N O <sup>3</sup>	Nitrogenium N	5664384	0.36850
6. Acidum Nitrosum N O <sup>3</sup>	Oxygenium O <sup>3</sup>	8003728	0.63150
7. Acidum Nitricum N O <sup>5</sup>	Nitrogenium N	4138445	0.25933
8. Acidum Nitricum N O <sup>5</sup>	Oxygenium O <sup>5</sup>	8696276	0.74068
9. Acidum Nitricum N O <sup>5</sup>	Acidum Nitrosum N O <sup>3</sup>	8474061	0.70373
10. Nitras Baricus Ba O + N O <sup>5</sup>	Acidum Nitricum N O <sup>5</sup>	6165211	0.41354
11. Nitras Baricus Ba O + N O <sup>5</sup>	Acidum Nitrosum N O <sup>3</sup>	4639272	0.29102
12. Sulphas Baricus Ba O + S O <sup>3</sup>	Acidum Nitricum N O <sup>5</sup>	6655640	0.46298
13. Sulphas Baricus Ba O + S O <sup>3</sup>	Acidum Nitrosum N O <sup>3</sup>	5129701	0.32581
14. Nitrogenium et Acidum Carbonicum 2 C O <sup>2</sup> + 4 N	Acidum Nitrosum 2 N O <sup>3</sup>	8807851	0.75995
15. Chlorid. Platinico-Ammonicum N H <sup>4</sup> Cl + Pt Cl <sup>2</sup>	Nitrogenium N	7980530	0.06281
XXXVI. OSMIUM.			
1. Oxydum Osmiosum Os O	Osmium Os	9664113	0.92557
2. Oxydum Osmiosum Os O	Oxygenium O	8717222	0.07443
3. Oxydum Sesquiosmiosum Os <sup>2</sup> O <sup>3</sup>	Osmium Os <sup>2</sup>	9505435	0.89237
4. Oxydum Sesquiosmiosum Os <sup>2</sup> O <sup>3</sup>	Oxygenium O <sup>3</sup>	0319457	0.10763
5. Oxydum Osmicum Os O <sup>2</sup>	Osmium Os	9352350	0.86146
6. Oxydum Osmicum Os O <sup>2</sup>	Oxygenium O <sup>2</sup>	1415759	0.13854
7. Acidum Osmicum Os O <sup>4</sup>	Osmium Os	8788866	0.75664
8. Acidum Osmicum Os O <sup>4</sup>	Oxygenium O <sup>4</sup>	3862575	0.24336

2.	3.	4.	5.	6.	7.	8.	9.
1.27289	1.90933	2.54577	3.18222	3.81866	4.45510	5.09154	5.72799
0.72711	1.09067	1.45423	1.81779	2.18134	2.54490	2.90846	3.27201
0.93350	1.40026	1.86701	2.33376	2.80051	3.26726	3.73402	4.20077
1.06650	1.59974	2.13299	2.66624	3.19949	3.73274	4.26598	4.79923
0.73700	1.10550	1.47400	1.84251	2.21101	2.57951	2.94801	3.31651
1.26300	1.89450	2.52600	3.15750	3.78899	4.42049	5.05199	5.68349
0.51865	0.77798	1.03730	1.29663	1.55595	1.81528	2.07460	2.33393
1.48135	2.22203	2.96270	3.70338	4.44405	5.18473	5.92540	6.66608
1.40746	2.11119	2.81492	3.51865	4.22238	4.92611	5.62984	6.33357
0.82709	1.24063	1.65417	2.06772	2.48126	2.89480	3.30834	3.72189
0.58205	0.87307	1.16409	1.45512	1.74614	2.03716	2.32818	2.61921
0.92596	1.38895	1.85193	2.31491	2.77789	3.24087	3.70386	4.16684
0.65163	0.97744	1.30326	1.62907	1.95488	2.28070	2.60651	2.93233
1.51990	2.27985	3.03980	3.79975	4.55970	5.31965	6.07960	6.83955
0.12563	0.18844	0.25126	0.31407	0.37688	0.43970	0.50251	0.56533
1.85115	2.77672	3.70230	4.62787	5.55344	6.47902	7.40459	8.33017
0.14885	0.22328	0.29770	0.37213	0.44655	0.52098	0.59540	0.66983
1.78473	2.67710	3.56947	4.46184	5.35420	6.24657	7.13894	8.03130
0.21527	0.32290	0.43053	0.53817	0.64580	0.75343	0.86106	0.96870
1.72292	2.58438	3.44584	4.30730	5.16876	6.03022	6.89168	7.75314
0.27708	0.41562	0.55416	0.69270	0.83124	0.96978	1.10832	1.24686
1.51327	2.26991	3.02654	3.78318	4.53981	5.29645	6.05308	6.80972
0.48673	0.73009	0.97346	1.21682	1.46018	1.70355	1.94691	2.19028



INVENTA.	INVENIENDA.	LOGARITH- MUS.	1.
9. Osmium Os	Acidum Osmicum Os O <sup>4</sup>	1211134	1.32164
XXXVII. PALLADIUM.			
1. Oxydum Palladosum Pd O	Palladium Pd	9392010	0.86936
2. Oxydum Palladosum Pd O	Oxygenium O	1160679	0.13064
3. Oxydum Palladicum Pd O <sup>2</sup>	Palladium Pd	8858776	0.76891
4. Oxydum Palladicum Pd O <sup>2</sup>	Oxygenium O <sup>2</sup>	3637745	0.23109
5. Chlorid. Palladoso-Kalicum K Cl + Pd Cl	Palladium Pd	5133129	0.32607
6. Iodidum Palladosum Pd I (170° F.)	Palladium Pd	4706671	0.29557
7. Palladium Pd	Chloridum Pallodosum Pd Cl	2217033	1.66611
XXXVIII. PHOSPHORUS.			
1. Acidum Hypophosphorum P O	Phosphorus P	9012578	0.79663
2. Acidum Hypophosphorum P O	Oxygenium O	3082821	0.20337
3. Acidum Phosphorum P O <sup>3</sup>	Phosphorus P	7530454	0.56630
4. Acidum Phosphorum P O <sup>3</sup>	Oxygenium O <sup>3</sup>	6371910	0.43370
5. Acidum Phosphoricum P O <sup>5</sup>	Phosphorus P	6427472	0.43929
6. Acidum Phosphoricum P O <sup>5</sup>	Oxygenium O <sup>5</sup>	7487415	0.56071
7. Acidum Phosphoricum P O <sup>5</sup>	Acid. Hypophosphoros. P O	7414894	0.55143
8. Acidum Phosphoricum P O <sup>5</sup>	Acid. Phosphorum P O <sup>3</sup>	8897018	0.77571
9. Phosphas Baricus 2 Ba O + P O <sup>5</sup>	Acid. Phosphoricum P O <sup>5</sup>	5020850	0.31775
10. Phosphas Calceus 2 Ca O + P O <sup>5</sup>	Acid. Phosphoricum P O <sup>5</sup>	7474618	0.55907
11. Phosphas Magnesius 2 Mg O + P O <sup>5</sup>	Acid. Phosphoricum P O <sup>5</sup>	8016264	0.63333
12. Phosphas Plumbeus 2 Pb O + P O <sup>5</sup>	Acid. Phosphoricum P O <sup>5</sup>	3842615	0.24225
13. Phosphas Argentius 2 Ag O + P O <sup>5</sup>	Acid. Phosphoricum P O <sup>5</sup>	3714701	0.23522
14. Chlorid. Hydrargyrosus 4 Hg <sup>2</sup> Cl	Acid. Hypophosphoros. P O	6205254	0.04174
15. Chlorid. Hydrargyrosus 2 Hg <sup>2</sup> Cl	Acid. Phosphorum P O <sup>3</sup>	0697664	0.11743

2.	3.	4.	5.	6.	7.	8.	9.
2.64328	3.96492	5.28656	6.60820	7.92984	9.25148	10.57312	11.89476
1.73873	2.60809	3.47745	4.34682	5.21618	6.08554	6.95490	7.82427
0.26127	0.39191	0.52255	0.65319	0.78382	0.91446	1.04510	1.17573
1.53783	2.30674	3.07565	3.84457	4.61348	5.38239	6.15130	6.92022
0.46217	0.69326	0.92434	1.15543	1.38652	1.61760	1.84869	2.07977
0.65214	0.97821	1.30428	1.63036	1.95643	2.28250	2.60857	2.93464
0.59115	0.88673	1.18230	1.47788	1.77345	2.06903	2.36460	2.66018
3.33222	4.99833	6.66444	8.33055	9.99665	11.66276	13.32887	14.99498
1.59326	2.38990	3.18653	3.98316	4.77979	5.57642	6.37306	7.16969
0.40674	0.61010	0.81347	1.01684	1.22021	1.42358	1.62694	1.83031
1.13260	1.69890	2.26520	2.83150	3.39779	3.96409	4.53039	5.09669
0.86740	1.30110	1.73480	2.16851	2.60221	3.03591	3.46961	3.90331
0.87857	1.31786	1.75714	2.19643	2.63572	3.07500	3.51429	3.95357
1.12143	1.68214	2.24286	2.80357	3.36428	3.92500	4.48571	5.04643
1.10286	1.65429	2.20572	2.75715	3.30857	3.86000	4.41143	4.96286
1.55143	2.32714	3.10286	3.87857	4.65428	5.43000	6.20571	6.98143
0.63550	0.95325	1.27100	1.58875	1.90650	2.22425	2.54200	2.85975
1.11813	1.67720	2.23626	2.79533	3.35439	3.91346	4.47252	5.03159
1.26665	1.89998	2.53330	3.16663	3.79995	4.43328	5.06660	5.69993
0.48450	0.72675	0.96900	1.21125	1.45349	1.69574	1.93799	2.18024
0.47044	0.70565	0.94087	1.17609	1.41131	1.64653	1.88174	2.11696
0.08347	0.12521	0.16695	0.20869	0.25042	0.29216	0.33390	0.37563
0.23485	0.35228	0.46971	0.58714	0.70456	0.82199	0.93942	1.05684



INVENTA.	INVENIENDA.	LOGARITH- MUS.	1.
XXXIX. PLATINUM.			
1. Oxydum Platinosum Pt O	Platinum Pt	9661087	0.92493
2. Oxydum Platinosum Pt O	Oxygenium O	8754697	0.07507
3. Oxydum Platinicum Pt O <sup>2</sup>	Platinum Pt	9346717	0.86034
4. Oxydum Platinicum Pt O <sup>2</sup>	Oxygenium O <sup>2</sup>	1450627	0.13966
5. Chlorid. Platinico-Kalium K Cl + Pt Cl <sup>2</sup>	Platinum Pt	6062287	0.40386
6. Chlorid. Platinico-Ammonic. N H <sup>4</sup> Cl + Pt Cl <sup>2</sup>	Platinum Pt	6455050	0.44208
7. Platinum Pt	Chloridum Platinicum Pt Cl <sup>2</sup>	2354182	1.71956
XL. PLUMBUM.			
1. Oxydum Plumbicum Pb O	Plumbum Pb	9676870	0.92830
2. Oxydum Plumbicum Pb O	Oxygenium O	8555363	0.07170
3. Sesquioxylum Plumbicum Pb <sup>2</sup> O <sup>3</sup>	Plumbum Pb <sup>2</sup>	9523896	0.89617
4. Sesquioxylum Plumbicum Pb <sup>2</sup> O <sup>3</sup>	Oxygenium O <sup>3</sup>	0163302	0.10383
5. Binoxylum Plumbicum Pb O <sup>2</sup>	Plumbum Pb	9376126	0.86619
6. Binoxylum Plumbicum Pb O <sup>2</sup>	Oxygenium O <sup>2</sup>	1264919	0.13381
7. Chloridum Plumbicum Pb Cl	Plumbum Pb	8721196	0.74494
8. Chloridum Plumbicum Pb Cl	Oxydum Plumbicum Pb O	9044326	0.80248
9. Sulphas Plumbicus Pb O + S O <sup>3</sup>	Plumbum Pb	8344509	0.68305
10. Sulphas Plumbicus Pb O + S O <sup>3</sup>	Oxydum Plumbicum Pb O	8667639	0.73581
11. Sulphas Plumbicus Pb O + S O <sup>3</sup>	Carbonas Plumbicus Pb O + C O <sup>2</sup>	9449243	0.88090
12. Sulphidum Plumbicum Pb S	Plumbum Pb	9373947	0.86575
13. Sulphidum Plumbicum Pb S	Oxydum Plumbicum Pb O	9697077	0.93263
14. Sulphidum Plumbicum Pb S	Carbonas Plumbicus Pb O + C O <sup>2</sup>	0478681	1.11652
XLI. RHODIUM.			
1. Oxydum Rhodosum R O	Rhodium R	9380264	0.86701

2.	3.	4.	5.	6.	7.	8.	9.
1.84986	2.77479	3.69972	4.62465	5.54957	6.47450	7.39943	8.32436
0.15014	0.22521	0.30028	0.37536	0.45043	0.52550	0.60057	0.67564
1.72069	2.58103	3.44138	4.30172	5.16206	6.02240	6.88274	7.74309
0.27931	0.41897	0.55863	0.69829	0.83794	0.97760	1.11726	1.25691
0.80772	1.21157	1.61543	2.01929	2.42315	2.82701	3.23086	3.63472
0.88417	1.32625	1.76834	2.21042	2.65250	3.09459	3.53667	3.97876
3.43913	5.15869	6.87826	8.59782	10.31738	12.03695	13.75651	15.47608
1.85659	2.78489	3.71319	4.64149	5.56978	6.49808	7.42638	8.35467
0.14341	0.21511	0.28631	0.35852	0.43022	0.50192	0.57362	0.64533
1.79234	2.68850	3.58467	4.48084	5.37701	6.27318	7.16934	8.06551
0.20766	0.31150	0.41533	0.51916	0.62299	0.72682	0.83066	0.93449
1.73238	2.59857	3.46476	4.33095	5.19713	6.06332	6.92951	7.79570
0.26762	0.40143	0.53524	0.66906	0.80287	0.93668	1.07049	1.20430
1.48987	2.23481	2.97975	3.72469	4.46962	5.21456	5.95950	6.70443
1.60495	2.40743	3.20991	4.01239	4.81486	5.61734	6.41982	7.22229
1.36610	2.04914	2.73219	3.41524	4.09829	4.78134	5.46438	6.14743
1.47161	2.20742	2.94323	3.67904	4.41484	5.15065	5.88646	6.62226
1.76179	2.64269	3.52358	4.40448	5.28537	6.16627	7.04716	7.92806
1.73151	2.59726	3.46302	4.32877	5.19452	6.06028	6.92603	7.79179
1.86525	2.79788	3.73051	4.66314	5.59576	6.52839	7.46102	8.39364
2.23305	3.34957	4.46610	5.58262	6.69914	7.81567	8.93219	10.04872
1.73403	2.60104	3.46806	4.33507	5.20208	6.06910	6.93611	7.80313

INVENTA.	INVENIENDA.	LOGARITH- MUS.	1.
2. Oxydum Rhodosum R O	Oxygenium O	1238041	0.13299
3. Oxydum Rhodicum R <sup>2</sup> O <sup>3</sup>	Rhodium R <sup>2</sup>	9100685	0.81296
4. Oxydum Rhodicum R <sup>2</sup> O <sup>3</sup>	Oxygenium O <sup>3</sup>	2719375	0.18704
5. Rhodium R	Oxydum Rhodicum $\frac{1}{2}$ R <sup>2</sup> O <sup>3</sup>	0899315	1.23007
6. Rhodium R	Chloridum Rhodicum $\frac{1}{2}$ R <sup>2</sup> Cl <sup>3</sup>	3053246	2.01988
XLII. RUTHENIUM.			
1. Oxydum Ruthenosum Ru O	Ruthenium Ru	9380264	0.86701
2. Oxydum Ruthenosum Ru O	Oxygenium O	1238041	0.13299
3. Oxydum Ruthenicum Ru <sup>2</sup> O <sup>3</sup>	Ruthenium Ru <sup>2</sup>	9100685	0.81296
4. Oxydum Ruthenicum Ru <sup>2</sup> O <sup>3</sup>	Oxygenium O <sup>3</sup>	2719375	0.18704
5. Binoxydum Ruthenicum Ru O <sup>2</sup>	Ruthenium Ru	8838021	0.76525
6. Binoxydum Ruthenicum Ru O <sup>2</sup>	Oxygenium O <sup>2</sup>	3706098	0.23475
7. Acidum Ruthenicum Ru O <sup>3</sup>	Ruthenium Ru	8356027	0.68486
8. Acidum Ruthenicum Ru O <sup>3</sup>	Oxygenium O <sup>3</sup>	4985017	0.31514
9. Ruthenium Ru <sup>2</sup>	Chlorid. Ruthenicum Ru <sup>2</sup> Cl <sup>3</sup>	3053246	2.01988
XLIII. SELENIUM.			
1. Acidum Selenosum Se O <sup>2</sup>	Selenium Se	8526923	0.71235
2. Acidum Selenosum Se O <sup>2</sup>	Oxygenium O <sup>2</sup>	4588671	0.28765
3. Acidum Selenicum Se O <sup>3</sup>	Selenium Se	7943324	0.62278
4. Acidum Selenicum Se O <sup>3</sup>	Oxygenium O <sup>3</sup>	5765985	0.37722
5. Sulphidum Selenosum Se S <sup>2</sup>	Selenium Se	7421668	0.55229
6. Sulphidum Selenosum Se S <sup>2</sup>	Acidum Selenosum Se O <sup>2</sup>	8894745	0.77531
7. Selenium Se	Acidum Selenosum Se O <sup>2</sup>	1473077	1.40381
8. Selenium Se	Acidum Selenicum Se O <sup>3</sup>	2056676	1.60571
9. Selenias Baryticus Ba O + Se O <sup>3</sup>	Acidum Selenicum Se O <sup>3</sup>	6568388	0.45377

2.	3.	4.	5.	6.	7.	8.	9.
0.26597	0.39896	0.53194	0.66493	0.79791	0.93090	1.06388	1.19687
1.62592	2.43887	3.25183	4.06479	4.87775	5.69071	6.50366	7.31662
0.37408	0.56112	0.74816	0.93521	1.12225	1.30929	1.49633	1.68337
2.46015	3.69023	4.92030	6.15038	7.38045	8.61053	9.84060	11.07068
4.03975	6.05963	8.07950	10.09938	12.11925	14.13913	16.15900	18.17888
1.73403	2.60104	3.46806	4.33507	5.20208	6.06910	6.93611	7.80313
0.26597	0.39896	0.53194	0.66493	0.79791	0.93090	1.06388	1.19687
1.62592	2.43887	3.25183	4.06479	4.87775	5.69071	6.50366	7.31662
0.37408	0.56112	0.74816	0.93521	1.12225	1.30929	1.49633	1.68337
1.53050	2.29574	3.06099	3.82624	4.59149	5.35674	6.12198	6.88723
0.46950	0.70426	0.93901	1.17376	1.40851	1.64326	1.87802	2.11277
1.36972	2.05458	2.73944	3.42431	4.10917	4.79403	5.47889	6.16375
0.63028	0.94542	1.26056	1.57570	1.89083	2.20597	2.52111	2.83625
4.03975	6.05963	8.07950	10.09938	12.11925	14.13913	16.15900	18.17888
1.42470	2.13704	2.84939	3.56174	4.27409	4.98644	5.69878	6.41113
0.57530	0.86295	1.15060	1.43826	1.72591	2.01356	2.30121	2.58886
1.24555	1.86833	2.49110	3.11388	3.73666	4.35943	4.98221	5.60498
0.75445	1.13167	1.50889	1.88612	2.26334	2.64056	3.01778	3.39501
1.10458	1.65687	2.20916	2.76145	3.31373	3.86602	4.41831	4.97060
1.55062	2.32592	3.10123	3.87654	4.65185	5.42716	6.20246	6.97777
2.80762	4.21142	5.61523	7.01904	8.42285	9.82666	11.23046	12.63427
3.21142	4.81714	6.42285	8.02856	9.63427	11.23998	12.84570	14.45141
0.90755	1.36132	1.81509	2.26887	2.72264	3.17641	3.63018	4.08396

INVENTA.	INVENIENDA.	LOGARITH- MUS.	1.
10. Selenias Baryticus Ba O + Se O <sup>3</sup>	Acidum Selenosum Se O <sup>2</sup>	5984789	0.39672
XLIV. SILICIUM.*			
1. Acidum Silicicum Si O <sup>3</sup>	Silicium Si	6819369	0.48077
2. Acidum Silicicum Si O <sup>3</sup>	Oxygenium O <sup>3</sup>	7153603	0.51923
XLIV. SILICIUM.†			
1. Acidum Silicicum Si O <sup>3</sup>	Silicium Si	6731604	0.47115
2. Acidum Silicicum Si O <sup>3</sup>	Oxygenium O <sup>3</sup>	7233315	0.52385
XLV. STANNUM.			
1. Oxydum Stannosum Sn O	Stannum Sn	9446217	0.88028
2. Oxydum Stannosum Sn O	Oxygenium O	0781606	0.11972
3. Oxydum Stannicum Sn O <sup>2</sup>	Stannum Sn	8955129	0.78616
4. Oxydum Stannicum Sn O <sup>2</sup>	Oxygenium O <sup>2</sup>	3300818	0.21384
5. Oxydum Stannicum Sn O <sup>2</sup>	Oxydum Stannosum Sn O	9508912	0.89308
6. Sulphidum Stannicum Sn S <sup>2</sup>	Stannum Sn	8107793	0.64681
7. Sulphidum Stannicum Sn S <sup>2</sup>	Oxydum Stannosum Sn O	8661576	0.73478
8. Sulphidum Stannicum Sn S <sup>2</sup>	Oxydum Stannicum Sn O <sup>2</sup>	9152664	0.82275
9. Chlorid. Hydrargyrosus Hg <sup>2</sup> Cl	Oxydum Stannosum Sn O	4527069	0.28360
10. Chlorid. Hydrargyrosus Hg <sup>2</sup> Cl	Chloridum Stannosum Sn Cl	6022243	0.40015
XLVI. STIBIUM.			
1. Acidum Stibiosum Sb O <sup>3</sup>	Stibium Sb	9259152	0.84317
2. Acidum Stibiosum Sb O <sup>3</sup>	Oxygenium O <sup>3</sup>	1954283	0.15683
3. Oxyd. Stibioso-Stibicum Sb O <sup>3</sup> + Sb O <sup>2</sup>	Stibium Sb <sup>2</sup>	9037854	0.80128
4. Oxyd. Stibioso-Stibicum Sb O <sup>3</sup> + Sb O <sup>5</sup>	Oxygenium O <sup>5</sup>	2982372	0.19872
5. Acidum Stibicum Sb O <sup>5</sup>	Stibium Sb	8827287	0.76336
6. Acidum Stibicum Sb O <sup>5</sup>	Oxygenium O <sup>5</sup>	3740955	0.23664

\* Si = 277.778. — Berzelius.

† Si = 267.27. — Pelouze.



2.	3.	4.	5.	6.	7.	8.	9.
0.79343	1.19015	1.58686	1.98358	2.38029	2.77701	3.17372	3.57044
0.96154	1.44231	1.92308	2.40385	2.88461	3.36538	3.84615	4.32692
1.03846	1.55769	2.07692	2.59616	3.11539	3.63462	4.15385	4.67308
0.94230	1.41345	1.88460	2.35576	2.82691	3.29806	3.76921	4.24036
1.05770	1.58655	2.11540	2.64425	3.17309	3.70194	4.23079	4.75964
1.76056	2.64085	3.52113	4.40141	5.28169	6.16197	7.04226	7.92254
0.23944	0.35915	0.47887	0.59859	0.71831	0.83803	0.95774	1.07746
1.57233	2.35849	3.14466	3.93082	4.71698	5.50315	6.28931	7.07547
0.42767	0.64151	0.85534	1.06918	1.28302	1.49685	1.71069	1.92453
1.78616	2.67924	3.57232	4.46540	5.35848	6.25156	7.14464	8.03772
1.29363	1.94044	2.58726	3.23407	3.88088	4.52770	5.17451	5.82133
1.46956	2.20434	2.93912	3.67390	4.40868	5.14346	5.87824	6.61302
1.64549	2.46824	3.29099	4.11374	4.93648	5.75923	6.58199	7.40472
0.56720	0.85080	1.13440	1.41800	1.70160	1.98520	2.26880	2.55240
0.80030	1.20045	1.60060	2.00076	2.40091	2.80106	3.20121	3.60136
1.68634	2.52951	3.37268	4.21585	5.05902	5.90219	6.74536	7.58853
0.31366	0.47049	0.62732	0.78415	0.94098	1.09781	1.25464	1.41147
1.60257	2.40385	3.20513	4.00641	4.80770	5.60898	6.41026	7.21155
0.39743	0.59615	0.79487	0.99359	1.19230	1.39102	1.58974	1.78845
1.52672	2.29008	3.05344	3.81680	4.58016	5.34352	6.10688	6.87024
0.47328	0.70992	0.94656	1.18320	1.41984	1.65648	1.89312	2.12976



INVENTA.	INVENIENDA.	LOGARITH- MUS.	1.
7. Sulphidum Stibiosum Sb S <sup>3</sup>	Stibium Sb	8622044	0.72812
8. Sulphidum Stibiosum Sb S <sup>3</sup>	Acidum Stibiosum Sb O <sup>3</sup>	9362892	0.86355
9. Sulphur 2 S	Sulphidum Stibicum Sb S <sup>5</sup>	8140606	6.51719
10. Stibium Sb	Acidum Stibiosum Sb O <sup>3</sup>	0740848	1.18600
11. Stibium Sb <sup>2</sup>	Oxyd. Stibioso-Stibic. Sb O <sup>3</sup> + Sb O <sup>5</sup>	0962146	1.24800
12. Stibium Sb	Acidum Stibicum Sb O <sup>5</sup>	1172713	1.31000
13. Stibium Sb	Sulphidum Stibiosum Sb S <sup>3</sup>	1377956	1.37340
14. Aurum 2 Au	Acidum Stibiosum 3 Sb O <sup>3</sup>	0671440	1.16720
XLVII. STRONTIUM.			
1. Oxydum Stronticum Sr O	Strontium Sr	9271047	0.84548
2. Oxydum Stronticum Sr O	Oxygenium O	1889769	0.15452
3. Sulphas Stronticus Sr O + S O <sup>3</sup>	Oxydum Stronticum Sr O	7511088	0.56378
4. Carbonas Stronticus Sr O + C O <sup>2</sup>	Oxydum Stronticum Sr O	8462088	0.70179
5. Nitras Stronticus Sr O + N O <sup>5</sup>	Oxydum Stronticum Sr O	6897138	0.48946
6. Chloridum Stronticum Sr Cl	Oxydum Stronticum Sr O	8151875	0.65341
7. Chloridum Stronticum Sr Cl	Strontium Sr	7422922	0.55245
XLVIII. SULPHUR.			
1. Acidum Hyposulphurosum S <sup>2</sup> O <sup>2</sup>	Sulphur S <sup>2</sup>	8244499	0.66750
2. Acidum Hyposulphurosum S <sup>2</sup> O <sup>2</sup>	Oxygenium O <sup>2</sup>	5217944	0.33250
3. Acidum Sulphurosum S O <sup>2</sup>	Sulphur S	6997821	0.50094
4. Acidum Sulphurosum S O <sup>2</sup>	Oxygenium O <sup>2</sup>	6981565	0.49906
5. Acidum Hyposulphuricum S <sup>2</sup> O <sup>3</sup>	Sulphur S <sup>2</sup>	6487198	0.44537
6. Acidum Hyposulphuricum S <sup>2</sup> O <sup>3</sup>	Oxygenium O <sup>5</sup>	7440043	0.55463
7. Acidum Sulphuricum S O <sup>3</sup>	Sulphur S	6030346	0.40090
8. Acidum Sulphuricum S O <sup>3</sup>	Oxygenium O <sup>3</sup>	7775003	0.59910

2.	3.	4.	5.	6.	7.	8.	9.
1.45624	2.18437	2.91249	3.64061	4.36873	5.09685	5.82498	6.55310
1.72711	2.59066	3.45421	4.31777	5.18132	6.04487	6.90842	7.77198
13.03439	19.55158	26.06877	32.58597	39.10316	45.62035	52.13754	58.65474
2.37200	3.55800	4.74400	5.93000	7.11600	8.30200	9.48800	10.67400
2.49600	3.74400	4.99200	6.24000	7.48800	8.73600	9.98400	11.23200
2.62000	3.93000	5.24000	6.55000	7.86000	9.17000	10.48000	11.79000
2.74679	4.12019	5.49358	6.86698	8.24037	9.61377	10.98716	12.36056
2.33439	3.50159	4.66879	5.83599	7.00318	8.17038	9.33758	10.50477
1.69097	2.53645	3.38193	4.22742	5.07290	5.91838	6.76386	7.60935
0.30903	0.46355	0.61807	0.77259	0.92710	1.08162	1.23614	1.39065
1.12756	1.69134	2.25512	2.81890	3.38267	3.94645	4.51023	5.07401
1.40359	2.10538	2.80717	3.50897	4.21076	4.91255	5.61434	6.31614
0.97891	1.46837	1.95782	2.44728	2.93674	3.42619	3.91565	4.40510
1.30683	1.96024	2.61365	3.26707	3.92048	4.57389	5.22730	5.88072
1.10490	1.65735	2.20980	2.76225	3.31469	3.86714	4.41959	4.97204
1.33500	2.00249	2.66999	3.33749	4.00499	4.67249	5.33998	6.00748
0.66500	0.99751	1.33001	1.66251	1.99501	2.32751	2.66002	2.99252
1.00187	1.50281	2.00374	2.50468	3.00562	3.50655	4.00749	4.50842
0.99813	1.49719	1.99626	2.49532	2.99438	3.49345	3.99251	4.49158
0.89074	1.33611	1.78148	2.22685	2.67221	3.11758	3.56295	4.00832
1.10926	1.66389	2.21852	2.77316	3.32779	3.88242	4.43705	4.99168
0.80180	1.20270	1.60360	2.00450	2.40539	2.80629	3.20719	3.60809
1.19820	1.79730	2.39640	2.99551	3.59461	4.19371	4.79281	5.39191

INVENTA.	INVENIENDA.	LOGARITH- MUS.	1.
9. Sulphas Baricus Ba O + S O <sup>3</sup>	Sulphur S	1388772	0.13768
10. Sulphas Baricus 2 (Ba O + S O <sup>3</sup> )	Acid. Hyposulphuros. S <sup>2</sup> O <sup>2</sup>	3144273	0.20627
11. Sulphas Baricus Ba O + S O <sup>3</sup>	Acid. Hyposulphuros. S <sup>2</sup> O <sup>2</sup>	6154572	0.41253
12. Sulphidum Argenticum Ag S	Acid. Hyposulphuros. S <sup>2</sup> O <sup>2</sup>	5887890	0.38796
13. Sulphas Baricus Ba O + S O <sup>3</sup>	Acidum Sulphurosum S O <sup>2</sup>	4390951	0.27485
14. Sulphas Baricus 2 (Ba O + S O <sup>3</sup> )	Acid. Hyposulphuric. S <sup>2</sup> O <sup>5</sup>	4901574	0.30914
15. Sulphas Baricus Ba O + S O <sup>3</sup>	Acidum Sulphuricum S O <sup>3</sup>	5358426	0.34343
16. Sulphas Calcicus Ca O + S O <sup>3</sup>	Acidum Sulphuricum S O <sup>3</sup>	7689771	0.58746
17. Sulphas Plumbicus Pb O + S O <sup>3</sup>	Sulphur S	0249558	0.10591
18. Sulphas Plumbicus Pb O + S O <sup>3</sup>	Acidum Sulphuricum S O <sup>3</sup>	4219212	0.26419
19. Sulphidum Arseniosum As S <sup>3</sup>	Sulphidum Hydricum 3 H S	6185697	0.41550
20. Sulphas Baricus Ba O + S O <sup>3</sup>	Sulphidum Hydricum H S	1651106	0.14626
21. Sulphur S	Sulphidum Hydricum H S	0262334	1.06227
22. Sulphidum Hydricum H S	Sulphur S	9737666	0.94138
23. Sulphas Kalicus K O + S O <sup>3</sup>	Acidum Sulphuricum S O <sup>3</sup>	6623515	0.45957
24. Sulphas Natricus Na O + S O <sup>3</sup>	Acidum Sulphuricum S O <sup>3</sup>	7511175	0.56379
25. Sulphur S	Acidum Sulphuricum S O <sup>3</sup>	3969654	2.49440
XLIX. TANTALUM.			
1. Oxydum Tantalicum Ta O <sup>2</sup>	Tantalum Ta	9637384	0.91990
2. Oxydum Tantalicum Ta O <sup>2</sup>	Oxygenium O <sup>2</sup>	9036584	0.08010
3. Acidum Tantalicum Ta O <sup>3</sup>	Tantalum Ta	9466832	0.88447
4. Acidum Tantalicum Ta O <sup>3</sup>	Oxygenium O <sup>3</sup>	0626945	0.11553
L. TELLURIUM.			
1. Acidum Tellurosum Te O <sup>2</sup>	Tellurium Te	9032807	0.80035
2. Acidum Tellurosum Te O <sup>2</sup>	Oxygenium O <sup>2</sup>	3002663	0.19965

2.	3.	4.	5.	6.	7.	8.	9.
0.27536	0.41305	0.55073	0.68841	0.82609	0.96377	1.10146	1.23914
0.41253	0.61880	0.82506	1.03133	1.23760	1.44386	1.65013	1.85639
0.82506	1.23760	1.65013	2.06266	2.47519	2.88772	3.30026	3.71279
0.77592	1.16389	1.55185	1.93981	2.32777	2.71573	3.10370	3.49166
0.54970	0.82455	1.09940	1.37425	1.64910	1.92395	2.19880	2.47365
0.61828	0.92743	1.23657	1.54571	1.85485	2.16399	2.47314	2.78228
0.68687	1.03030	1.37373	1.71717	2.06060	2.40403	2.74746	3.09090
1.17492	1.76237	2.34983	2.93729	3.52475	4.11221	4.69966	5.28712
0.21183	0.31774	0.42366	0.52957	0.63548	0.74140	0.84731	0.95323
0.52839	0.79258	1.05677	1.32097	1.58516	1.84935	2.11354	2.37774
0.83100	1.24650	1.66200	2.07750	2.49299	2.90849	3.32399	3.73949
0.29251	0.43877	0.58502	0.73128	0.87753	1.02379	1.17004	1.31630
2.12453	3.18680	4.24907	5.31134	6.37360	7.43587	8.49814	9.56040
1.88277	2.82415	3.76553	4.70692	5.64830	6.58968	7.53106	8.47245
0.91914	1.37871	1.83828	2.29785	2.75742	3.21699	3.67656	4.13613
1.12758	1.69137	2.25516	2.81895	3.38274	3.94653	4.51032	5.07411
4.98880	7.48320	9.97760	12.47200	14.96640	17.46080	19.95520	22.44960
1.83979	2.75969	3.67958	4.59948	5.51937	6.43927	7.35916	8.27906
0.16021	0.24032	0.32042	0.40053	0.48063	0.56074	0.64084	0.72095
1.76894	2.65341	3.53788	4.42235	5.30682	6.19129	7.07576	7.96023
0.23106	0.34659	0.46212	0.57765	0.69318	0.80871	0.92424	1.03977
1.60070	2.40105	3.20140	4.00176	4.80211	5.60246	6.40281	7.20316
0.39930	0.59894	0.79859	0.99824	1.19789	1.39754	1.59718	1.79683

INVENTA.	INVENIENDA.	LOGARITH- MUS.	I.
3. Acidum Telluricum Te O <sup>3</sup>	Tellurium Te	8619574	0.72771
4. Acidum Telluricum Te O <sup>3</sup>	Oxygenium O <sup>3</sup>	4350343	0.27229
5. Tellurium Te	Acidum Tellurosum Te O <sup>2</sup>	0967193	1.24945
6. Sulphidum Tellurosum Te S <sup>2</sup>	Tellurium Te	8236849	0.66632
7. Sulphidum Tellurosum Te S <sup>2</sup>	Acidum Tellurosum Te O <sup>2</sup>	9204042	0.83254
LI. THORIUM.			
1. Oxydum Thoricum Th O	Thorium Th	9452996	0.88166
2. Oxydum Thoricum Th O	Oxygenium O	0731433	0.11834
LII. TITANIUM.			
1. Acidum Titanicum Ti O <sup>2</sup>	Titanium Ti	7789014	0.60104
2. Acidum Titanicum Ti O <sup>2</sup>	Oxygenium O <sup>2</sup>	6009323	0.39896
3. Sulphidum Titanicum Ti S <sup>2</sup>	Acidum Titanicum Ti O <sup>2</sup>	8532659	0.71329
LIII. URANIUM.			
1. Oxydum Uranosum U O	Uranium U	9456424	0.88235
2. Oxydum Uranosum U O	Oxygenium O	0705811	0.11765
3. Oxydum Uranicum U <sup>2</sup> O <sup>3</sup>	Uranium U <sup>2</sup>	9208188	0.83333
4. Oxydum Uranicum U <sup>2</sup> O <sup>3</sup>	Oxygenium O <sup>3</sup>	2218488	0.16667
5. Oxydum Uranoso-Uranicum U O + U <sup>2</sup> O <sup>3</sup>	Uranium U <sup>3</sup>	9289366	0.84906
6. Oxydum Uranoso-Uranicum U O + U <sup>2</sup> O <sup>3</sup>	Oxygenium O <sup>4</sup>	1788141	0.15094
7. Oxydum Uranoso-Uranicum U O + U <sup>2</sup> O <sup>3</sup>	Oxydum Uranosum 3 U O	9832943	0.96226
8. Oxydum Uranoso-Uranicum U O + U <sup>2</sup> O <sup>3</sup>	Oxydum Uranicum 1½ U <sup>2</sup> O <sup>3</sup>	0081179	1.01887
LIV. VANADIUM.			
1. Suboxydum Vanadicum V O	Vanadium V	9520632	0.89550
2. Suboxydum Vanadicum V O	Oxygenium O	0191371	0.10451
3. Oxydum Vanadicum V O <sup>2</sup>	Vanadium V	9088955	0.81077



2.	3.	4.	5.	6.	7.	8.	9.
1.45542	2.18313	2.91084	3.63855	4.36625	5.09396	5.82167	6.54938
0.54458	0.81687	1.08916	1.36146	1.63375	1.90604	2.17833	2.45062
2.49890	3.74835	4.99780	6.24726	7.49671	8.74616	9.99561	11.24506
1.33265	1.99897	2.66529	3.33162	3.99794	4.66426	5.33058	5.99691
1.66508	2.49761	3.33015	4.16269	4.99523	5.82777	6.66030	7.49284
1.76331	2.64497	3.52663	4.40829	5.28994	6.17160	7.05326	7.93491
0.23669	0.35503	0.47337	0.59172	0.71006	0.82840	0.94674	1.06509
1.20207	1.80311	2.40415	3.00519	3.60622	4.20726	4.80830	5.40933
0.79793	1.19689	1.59585	1.99482	2.39378	2.79274	3.19170	3.59067
1.42658	2.13987	2.85316	3.56645	4.27973	4.99302	5.70631	6.41960
1.76471	2.64706	3.52941	4.41177	5.29412	6.17647	7.05882	7.94118
0.23529	0.35294	0.47059	0.58824	0.70588	0.82353	0.94118	1.05882
1.66667	2.50000	3.33333	4.16667	5.00000	5.83333	6.66666	7.50000
0.33333	0.50000	0.66667	0.83334	1.00000	1.16667	1.33334	1.50000
1.69811	2.54717	3.39623	4.24529	5.09434	5.94340	6.79246	7.64151
0.30189	0.45283	0.60377	0.75472	0.90566	1.05660	1.20754	1.35849
1.92453	2.88679	3.84906	4.81132	5.77358	6.73585	7.69811	8.66038
2.03774	3.05660	4.07547	5.09434	6.11321	7.13208	8.15094	9.16981
1.79099	2.68649	3.58198	4.47748	5.37297	6.26847	7.16396	8.05946
0.20901	0.31352	0.41802	0.52253	0.62703	0.73154	0.83604	0.94055
1.62153	2.43230	3.24306	4.05383	4.86460	5.67536	6.48613	7.29689



INVENTA.	INVENIENDA.	LOGARITH- MUS.	1.
4. Oxydum Vanadicum V O <sup>2</sup>	Oxygenium O <sup>2</sup>	2769994	0.18923
5. Acidum Vanadicum V O <sup>3</sup>	Vanadium V	8696333	0.74069
6. Acidum Vanadicum V O <sup>3</sup>	Oxygenium O <sup>3</sup>	4138285	0.25932
LV. WOLFRAMIUM (TUNGSTEN).			
1. Oxydum Wolframicum W O <sup>2</sup>	Wolfranium W	9321817	0.85542
2. Oxydum Wolframicum W O <sup>2</sup>	Oxygenium O <sup>2</sup>	1600948	0.14458
3. Acidum Wolframicum W O <sup>3</sup>	Wolfranium W	9018703	0.79776
4. Acidum Wolframicum W O <sup>3</sup>	Oxygenium O <sup>3</sup>	3058747	0.20224
LVI. YTTRIUM.			
1. Oxydum Yttricum Y O	Yttrium Y	9036328	0.80100
2. Oxydum Yttricum Y O	Oxygenium O	2988518	0.19900
LVII. ZINCUM.			
1. Oxydum Zincicum Zn O	Zincum Zn	9045003	0.80260
2. Oxydum Zincicum Zn O	Oxygenium O	2953425	0.19740
3. Sulphas Zincicus Zn O + SO <sup>3</sup>	Oxydum Zincicum Zn O	7014810	0.50290
4. Sulphas Baricus Ba O + S O <sup>3</sup>	Sulphas Zincicus Zn O + S O <sup>3</sup>	8393981	0.69087
LVIII. ZIRCONIUM.			
1. Oxydum Zirconicum Zr <sup>2</sup> O <sup>3</sup>	Zirconium Zr <sup>2</sup>	8673003	0.73672
2. Oxydum Zirconium Zr <sup>2</sup> O <sup>3</sup>	Oxygenium O <sup>3</sup>	4204237	0.26328

2.	3.	4.	5.	6.	7.	8.	9.
0.37847	0.56770	0.75694	0.94617	1.13540	1.32464	1.51387	1.70311
1.48137	2.22206	2.96274	3.70343	4.44411	5.18480	5.92548	6.66617
0.51863	0.77795	1.03726	1.29658	1.55589	1.81521	2.07452	2.33384
1.71085	2.56627	3.42170	4.27712	5.13254	5.98797	6.84339	7.69882
0.28915	0.43373	0.57830	0.72288	0.86746	1.01203	1.15661	1.30118
1.59551	2.39327	3.19102	3.98878	4.78654	5.58429	6.38205	7.17980
0.40449	0.60673	0.80898	1.01122	1.21346	1.41571	1.61795	1.82020
1.60200	2.40300	3.20400	4.00500	4.80600	5.60700	6.40800	7.20900
0.39800	0.59700	0.79600	0.99500	1.19400	1.39300	1.59200	1.79100
1.60520	2.40781	3.21041	4.01301	4.81561	5.61821	6.42082	7.22342
0.39480	0.59219	0.78959	0.98699	1.18439	1.38179	1.57918	1.77658
1.00580	1.50870	2.01160	2.51450	3.01739	3.52029	4.02319	4.52609
1.38175	2.07262	2.76349	3.45437	4.14524	4.83611	5.52698	6.21786
1.47343	2.21015	2.94686	3.68358	4.42030	5.15701	5.89373	6.63044
0.52657	0.78985	1.05313	1.31642	1.57970	1.84298	2.10626	2.36955





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